

KV-M1100D

RM-818

SERVICE MANUAL

AEP Model
Chassis No. SCC-F04A-A



EE-1 CHASSIS

MODELS OF THE SAME SERIES

KV-M1100D	KV-M1100E
KV-M1100A	
KV-M1100B	

SPECIFICATIONS

【KV-M1100D】

Television system	B/G/H/I/L
Color system	PAL, SECAM, NTSC3.58, NTSC4.43
Channel coverage	ITALIA VHF : A-H2 (C) UHF : 21-69 PAL B/G VHF : E2-E12 UHF : E21-E69 CABLE TV (1) : S1-S41 CABLE TV (2) : S01-S05, M1-M10, U1-U10
Frequency medium	Mono-Standard F1 : Video 38.9MHz F1 : Audio 33.4MHz
Picture tube	Trinitron tube Approx. 28 cm (Approx. 26 cm picture measured diagonally) 90 °-degree deflection
Inputs	1 21-pin connector : CENELEC standard including RGB input. Y : 1Vp-p±3dB 75ohm C : 0.3Vp-p±3dB 75ohm
Outputs	21-pin connector : CENELEC standard Earphones jack : minijack
Sound output	2.5W (Music)
Power consumption	56 Wh

Dimensions	Approx. 296.2 × 261.0 × 328.5mm (w/h/d)
Weight	Approx. 8.5 kg
Supplied accessories	RM-818 Remote Commander (1) IEC designation R6 batteries (2) Terescopic antenna (1) DC cord (1) AC cord (1)

【RM-818】

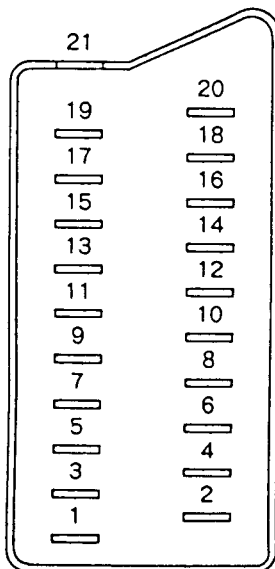
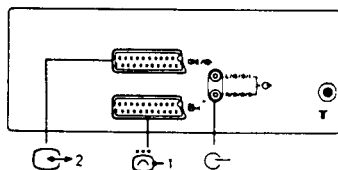
Remote control system	infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions	Approx. 44 × 25.3 × 108.4mm (w/h/d)
Weight	Approx. 105g (including batters)

Design and specifications are subject to change without notice.



TRINITRON® COLOR TV
SONY®

21 pin connector (1, 2)



Pin No.	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level: 0.5Vrms Output impedance: Less than 1kohm*
2	○	○	Audio input B (right)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
3	○	○	Audio output A (left)	Standard level: 0.5Vrms Output impedance: Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level: 0.5Vrms Input impedance: More than 10kohms*
7	○	●	Blue input	0.7V ± 3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5 – 12V): Part mode Low state (0 – 2V): TV mode Input impedance: More than 10kohms Input capacitance: Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal: 0.7V ± 3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V ± 3dB, 75ohms, positive
	–	○	(S signal) chroma input	0.3V ± 3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1 – 3V) Low state (0 – 0.4V) Input impedance: 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
20	○	–	Video input	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
	–	○	Video Input/Y (S signal)	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open)

* at 20Hz – 20kHz



4 pin connector (5)

Pin No.	Signal	Signal level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB, 75ohms, positive Sync: 0.3V (– 3, +10dB)
4	C (S signal) input	0.3V ± 3dB, 75ohms, positive

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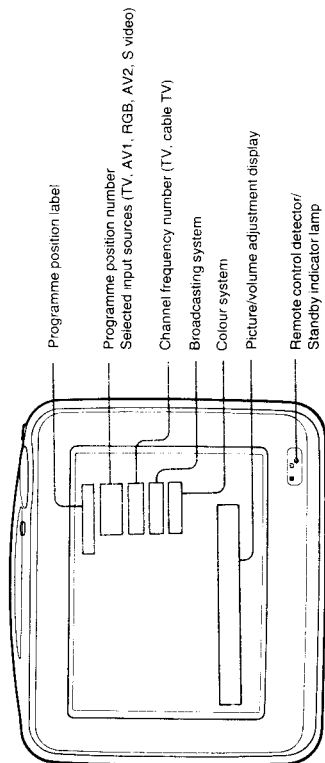
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

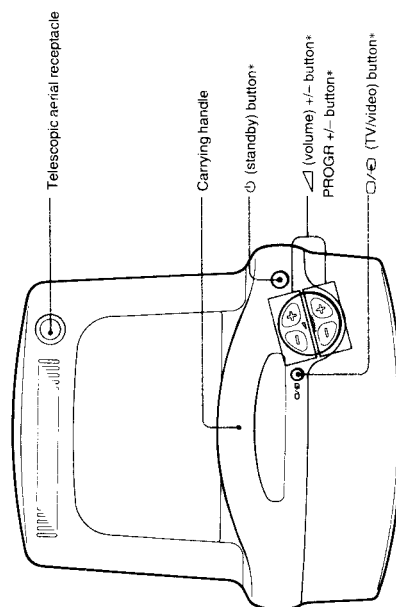
Identifying the Parts

Front controls and screen displays



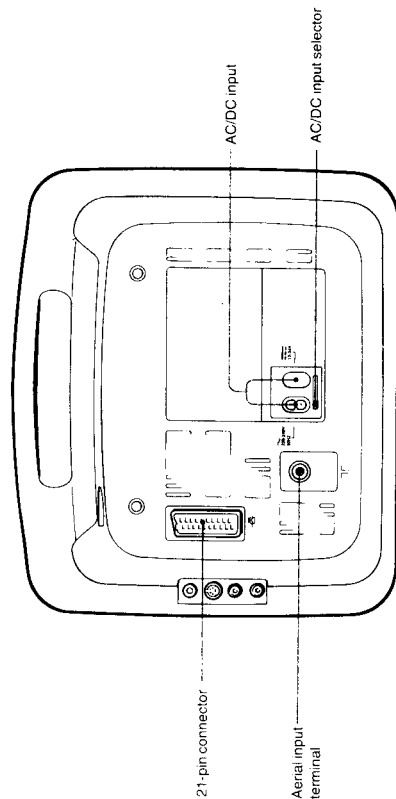
Note
When you first connect the TV to a power outlet, the TV will automatically go to standby mode, and the standby indicator lamp will light.

Top of the TV



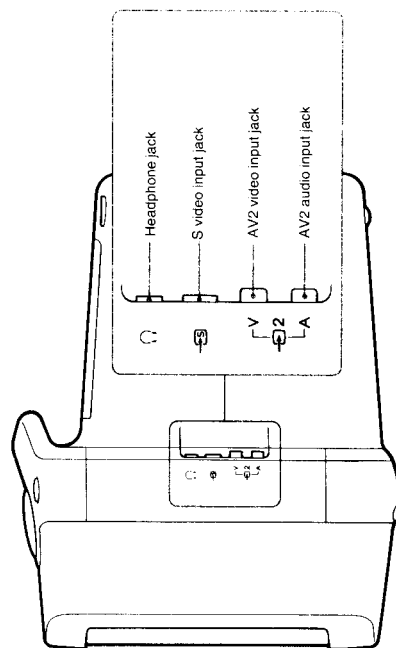
* The same function buttons are also located on the Remote Commander.

Rear of the TV



Side view

The symbol marks that appear at the side of the TV correspond to the jacks located on the recessed rear of the TV.



GB

SECTION 1 GENERAL

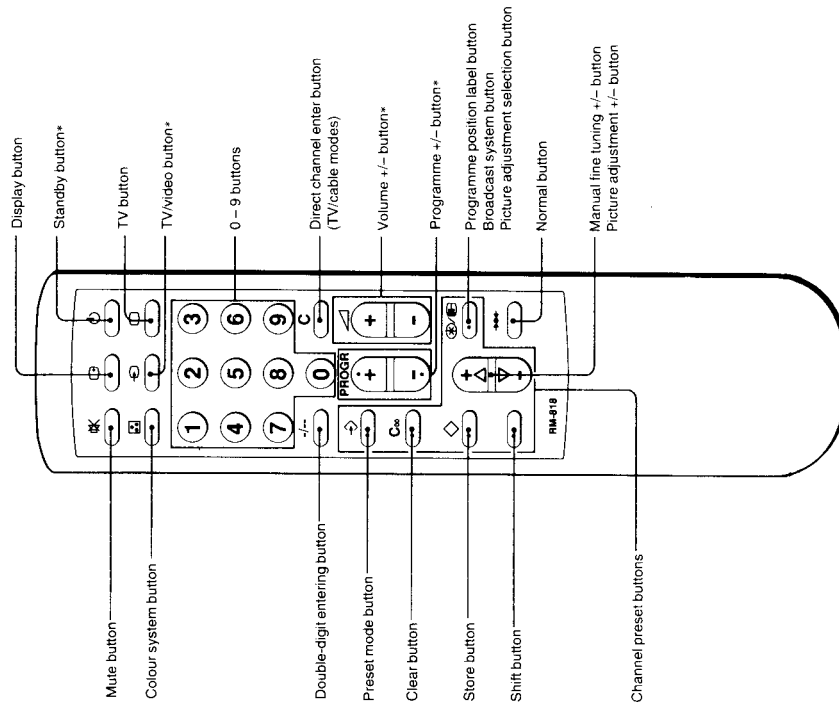
This section is extracted from instruction manual.

Chapter 1: Preparing for Use Setting Up Your TV

Identifying the Parts

Remote Commander RM-818

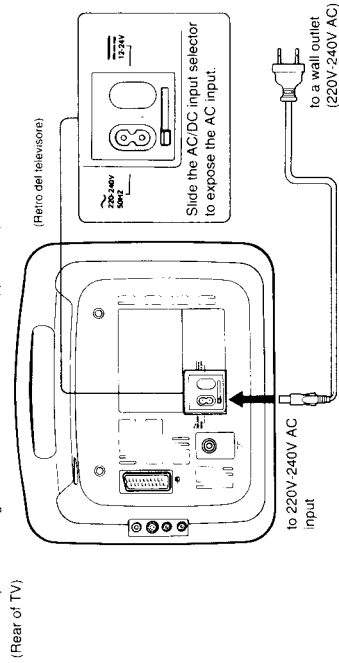
Most of the functions of the TV require the Remote Commander. Take care not to lose it.



* The same function buttons are also located on the TV.

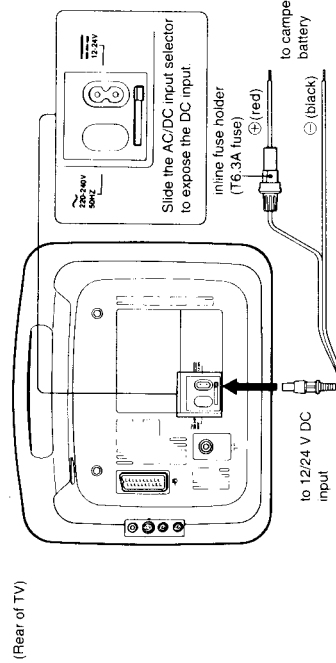
Using household (AC) current

To watch your TV using household current, attach the supplied AC power cord as shown below.



Using a car battery

You can use the power from your camper van's battery by attaching the supplied DC power cord to the battery. (Attach the cord using clips designed for this purpose — not supplied).



Notes

- For car use, the TV is designed to be operated on negative ground 12V-24V DC only.
- Use the supplied DC power cord manufactured by Sony.
- The polarity of other manufacturers' cord plugs may be different.
- When you are not using the TV, disconnect the DC power cord. If you don't, battery power will be lost, even in standby mode.
- In hot temperatures, do not leave the TV in the car for a long time.
- If colour separation occurs when the TV is connected to a DC power source, switch to household (AC) current.

When battery power falls below 12V, the TV automatically switches off and goes to standby mode. (The standby lamp blinks for several seconds, then remains lit.) First recharge the battery, then press the PROGR +/- button on the TV or press \square on the Remote Commander to turn the TV on.

Caution

- Do not connect the DC power cord to the AC power input, or the AC power cord to the DC power input.
- If you connect the DC power cord to the AC power outlet, or to the incorrect pole of the camper van's battery, the inline (T6.3A) fuse will burn out. Replace a burned-out fuse only with the same type fuse.

Presetting Channels

You can preset up to 60 channels onto programme position numbers (00 – 59), then select those position numbers to view the channels.

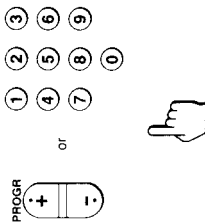
If you do not know the channel numbers of the stations you want to preset, follow the steps below ('Presetting channels automatically'). If you know the channel numbers, follow the steps on pp. 42, 43 ('Presetting channels directly').

Presetting channels automatically

1 While pressing the shift button, press \rightarrow to enter preset mode.




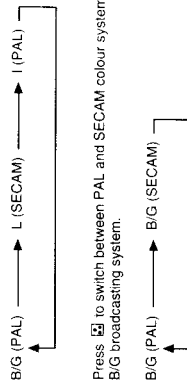
2 Press PROG +/- on the Remote Commander, or press the 0 – 9 buttons to select the position number to which you want to preset a channel.



Note

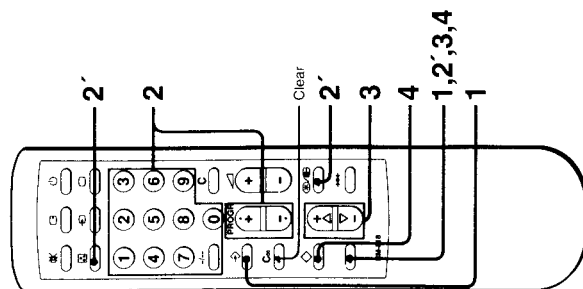
To select a double-digit number with the 0 – 9 buttons, first press **1/2**. For example, to select 23, press **1/2**, 2 and 3.

2' While pressing the shift button, press  to select the broadcasting (colour) system for your area. Each time you press, the systems change as shown below.



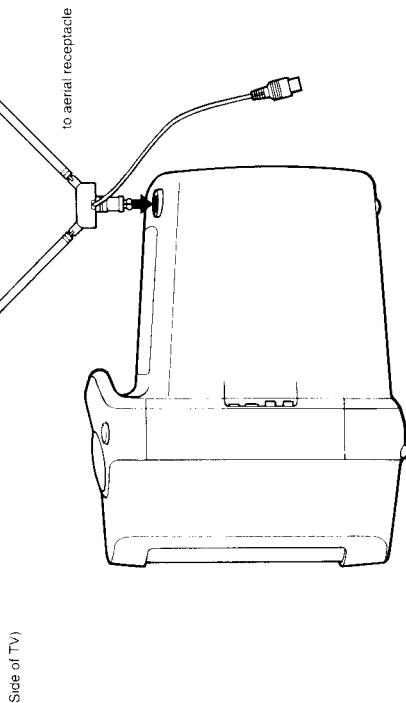
Press to switch between PAL and SECAM colour systems while in the B/G broadcasting system.

B/G (PAL) —————> B/G (SECAM)

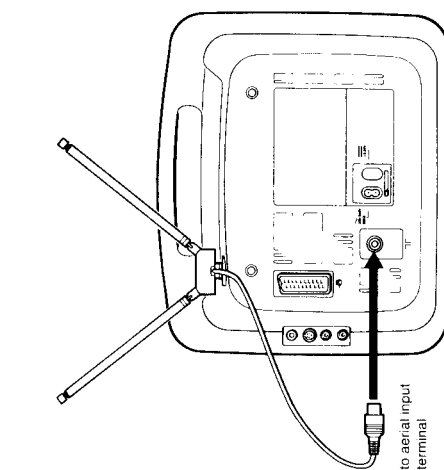


Attaching the telescopic aerial (supplied)

1 Insert the base of the aerial into the receptacle at the top of the TV, making sure it is inserted completely.



Attach the aerial connector plug to the aerial input terminal (rear of TV).



Note
To receive cable TV, contact your local cable company for cable connection.

Presetting Channels

Presetting channels directly

To continue searching without presetting a tuned-in channel

Press manual fine tuning +/- again.

To clear a programme position

While pressing the shift button,

press **Cw**. The programme position will be cleared, and the channel frequency number "00" will be selected.

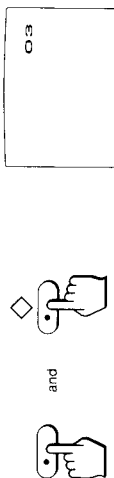
To exit preset mode

While pressing the shift button, press **↵**.

3 While pressing the shift button, press manual fine tuning +/- to search for channels forward or backward automatically.
The TV will search for available channels, beginning with the lowest available frequency number (VHF-UHF/CATV [hyper-band]), and stop when a channel is tuned in.



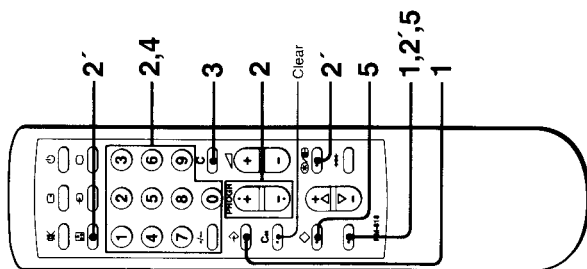
4 While pressing the shift button, press **↵** to preset the channel which is tuned in.



The channel is now preset and you will return to TV mode automatically.

To preset other channels

Repeat steps 1 – 4.



Presetting channels

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When you know the number of the channel you want to preset, follow the steps below to preset channels directly. For example, preset channel 3 onto position number 1.

1 While pressing the shift button, press **↵** to enter preset mode.



2 Press **PROGR +/-** on the Remote Commander, or press 1 to select position number 1.



Note

To select a double-digit number with the 0 – 9 buttons, first press **↵**. For example, to select 23, press **↵**, 2 and 3.

2' While pressing the shift button, press **↵** to select the broadcasting (colour) system for your area. Each time you press, the systems change as shown below.



Press **↵** to switch between PAL and SECAM colour systems while in the B/G broadcasting system.



Presetting channels

To clear a programme position
While pressing the shift button, press **C**.

To exit preset mode
While pressing the shift button, press **→**.

3 Press **C** to select the mode you want to preset. Press once to select regular TV mode; press twice to select cable TV mode.

TV mode

+

Cable TV mode

4 Press 0 and 3 to tune in channel 3 (you must press 0).

5 While pressing the shift button, press **◇** to preset the channel.

and

The channel is now preset and you have returned to TV mode.

To preset other channels
Repeat steps 1 – 5.

Labeling programme positions

You can identify each programme position with a label of up to five characters to help you remember your preset channels. The label will appear every time the position number is displayed.

For example, label programme position 8 as "NEWS1".

1 Press **PROGR +/-** on the Remote Commander, or press 8 to select position number 8.

or

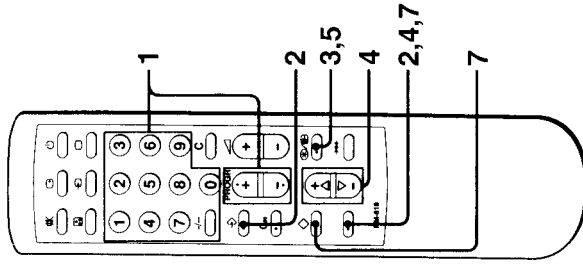
2 While pressing the shift button, press **→** to enter preset mode.

and

3 Press **◇**. The five label spaces will appear.

4 While pressing the shift button, press manual fine tuning +/- to select the letter "N". (Numbers, letters of the alphabet and "-" (blank space) will appear sequentially each time you press manual fine tuning +/-.)

and



Presetting channels

GB

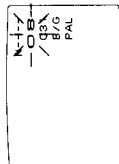
Presetting Channels

To exit label mode

While pressing the shift button, press \diamond .

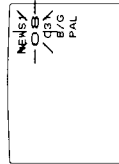
5

Press N to set the first character "N".



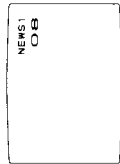
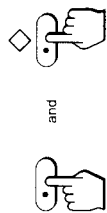
6

Repeat steps 4 and 5 to set the E, W, S and 1.



7

While pressing the shift button, press \diamond to store the label.
You will return to TV mode automatically



To set other labels
Repeat steps 1 – 7.

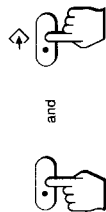
Skipping programme positions

By following the steps below, you can set the TV to skip unused programme position numbers when using PROGR +/- . You can select the skipped numbers by using the 0 – 9 buttons.

For example, set the TV to skip position number 5.

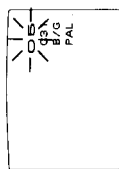
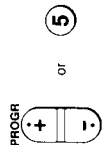
1

While pressing the shift button, press \rightarrow to enter preset mode.



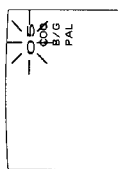
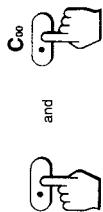
2

Press PROGR +/- on the Remote Commander, or press 5 to select position number 5.



3

While pressing the shift button, press C_{00} .
The channel frequency number "00" will be selected.



Presetting channels

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4 While pressing the shift button, press \diamond to set the position to be skipped. You will return to TV mode automatically. The next time you press **PROGR +/-**, position 5 will be skipped.



To skip other channels
Repeat steps 1 ~ 4.

To cancel the skip setting
Preset a channel onto the position number, following the steps on pp. 40, 41 or 42, 43.

To exit skip mode

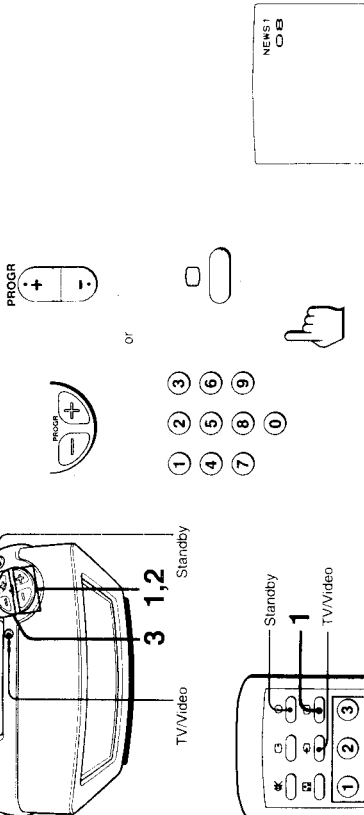
While pressing the shift button, press \rightarrow .

Presetting channels

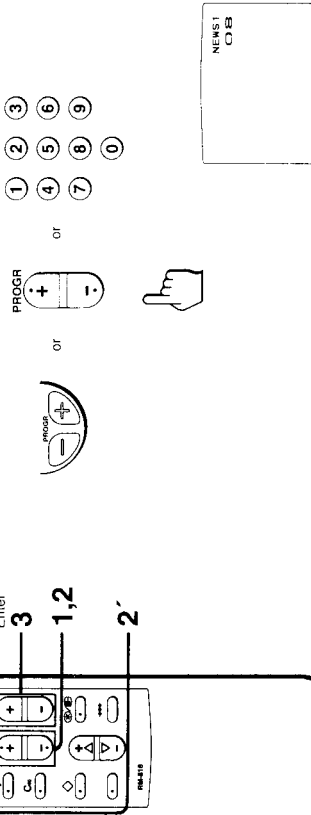
GB

Preset channels first, following the instructions on pp. 40 ~ 47.

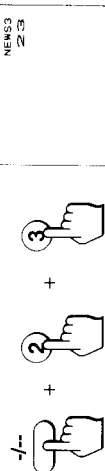
1 Press **PROGR +/-** on the TV or Remote Commander, or press the 0 ~ 9 buttons or TV button on the Remote Commander to turn the TV on.



2 Press **PROGR +/-** on the TV or Remote Commander, or press the 0 ~ 9 buttons to select the programme you want to watch.

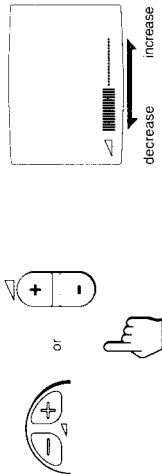


2' Press **-/-** first to select a double-digit number. For example, to select programme number 23, press **-/-**, 2 and 3.



Adjusting the Picture

3 Press \triangle / ∇ on the TV or Remote Commander to adjust the volume.



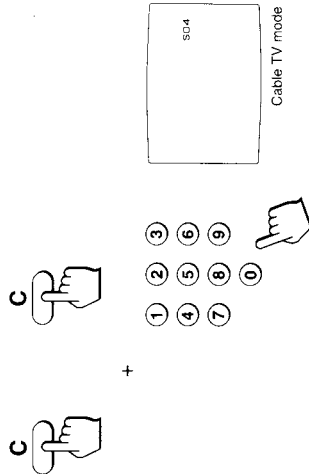
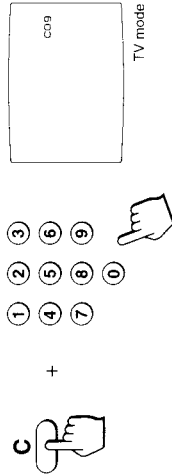
Press + to increase the volume.
Press - to decrease the volume.

To tune in a channel temporarily

If you know the channel frequency number, you can tune in a channel temporarily, without presetting.

Press **C** to select the mode you want to watch. (Press once to select regular TV mode; press twice to select cable TV mode.) Then press the 0 - 9 buttons to select the channel.

The channel will be received, but it is not preset to any position number.



Note

To select a double-digi number, press ∇ before pressing the 0 - 9 buttons.

To view the input from connected video equipment

Press \square / \triangle or ∇ to select the video input mode. **1** (AV 1), **2** (RGB), **3** (AV 2), **4** (S input) and TV modes will be selected in sequence. For further details, see pages 52 - 55.

To listen through a headphone

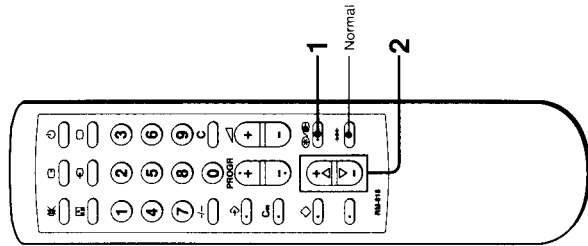
Connect a headphone (not supplied) to ∇ (the headphone jack) at the side of the TV (page 35).

To turn off the TV

Press ∇ on the TV or Remote Commander to turn the TV to standby mode.
To turn the power off completely, disconnect the power cord.

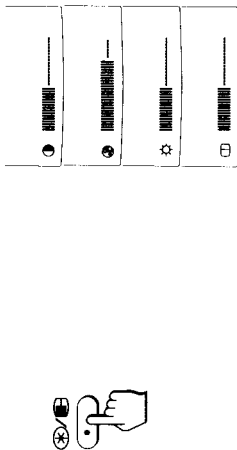
Watching TV programmes

GB

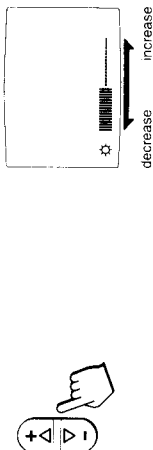


Use the picture adjustment feature to adjust the TV or video input picture to your taste.

1 Press ∇ to enter picture adjustment mode. Press repeatedly to select the quality you want to adjust. (Picture, colour, bright, hue [NTSC colour system only] and sharpness are selected in sequence.)



2 Press picture adjustment \pm to make the adjustment.



Picture quality	Press - button	Press + button
1 (picture)	To decrease picture contrast with soft colour	To increase picture contrast with vivid colour
2 (colour)	To decrease colour intensity	To increase colour intensity
3 (bright)	To decrease brightness	To increase brightness
4 (hue) (NTSC only)	Skin tones become purplish	Skin tones become greenish
5 (sharpness)	To decrease sharpness	To increase sharpness

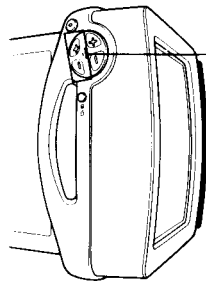
The display will disappear automatically after a few seconds, if you do not press any buttons.

To restore the original settings

Press *******

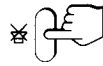
All the qualities will be restored to their original factory-set levels.

Using Other Convenient Features



Muting the sound

Press **Mute** to mute the sound.
The display **M** will appear on the screen.

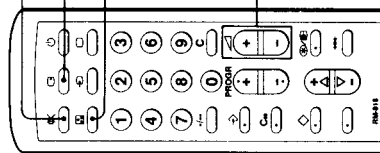


Volume +/-

Mute

Display

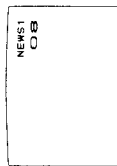
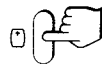
Colour System



Volume +/-

To cancel the display

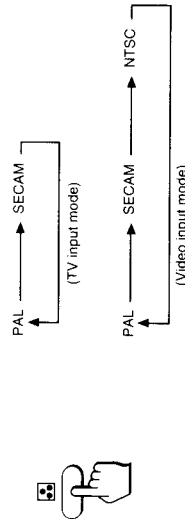
Press **Display** again.



Adjusting the picture
Using other convenient features

Changing colour systems

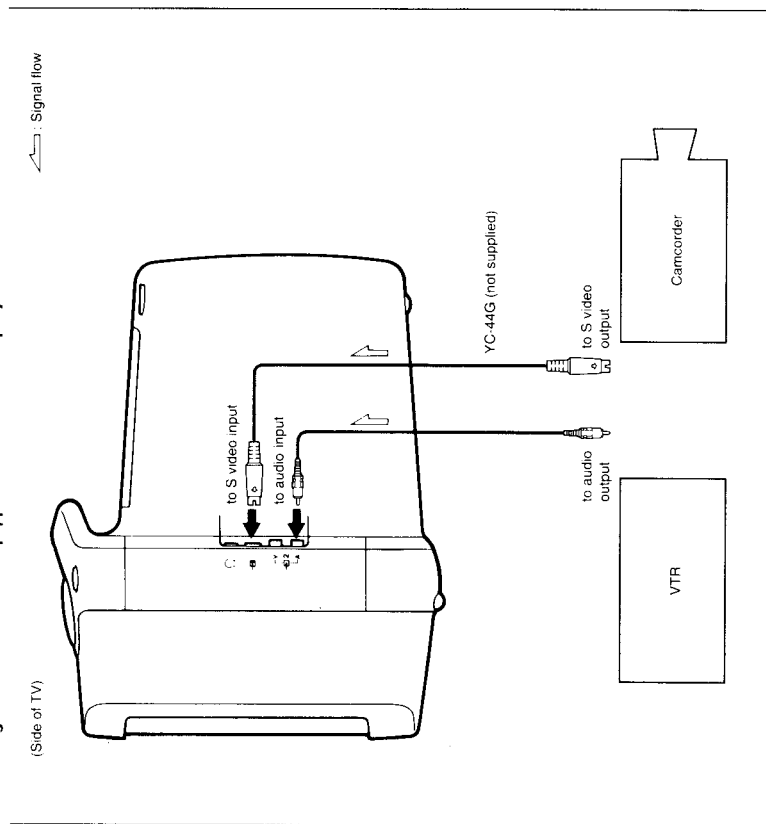
You can improve the colour reception by selecting the colour system suitable for your area. Each time you press **CS**, the colour system will change as shown below.



GB

Chapter 3: Making Other Connections Connecting Optional Equipment

Connecting a VTR or Camcorder equipped with an S video output jack



Notes

- Before connecting, be sure to turn off all equipment.
- Be sure to fully insert the plugs into the jacks. A loose connection may cause hum and noise.
- You can watch the image from a VTR by connecting through the "IF" terminal at the rear of the TV. In this case, press **TV** to select TV mode, and then select Channel 0.

Operating your equipment

1 Select S video input mode by pressing **AV** on the TV or **AV** on the Remote Commander until **AV** appears on the screen. Each time you press, the screen display will change as follows.



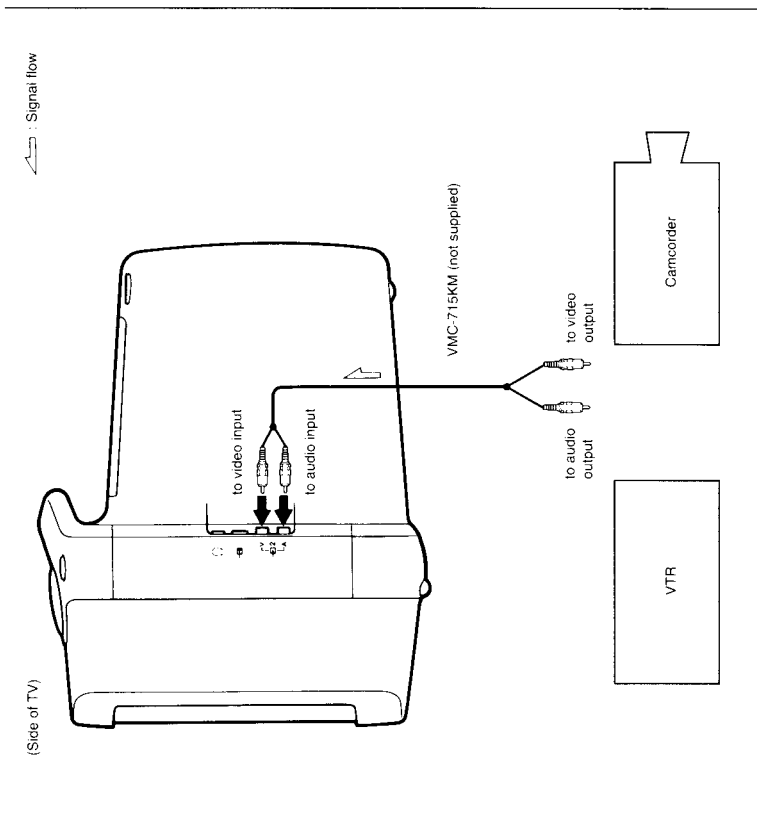
2 Set the equipment to playback mode.

To return to TV mode

Press **TV** on the Remote Commander to return directly to TV mode.

Connecting Optional Equipment

Connecting a VTR or Camcorder not equipped with an S video output jack



Connecting optional equipment

Operating your equipment

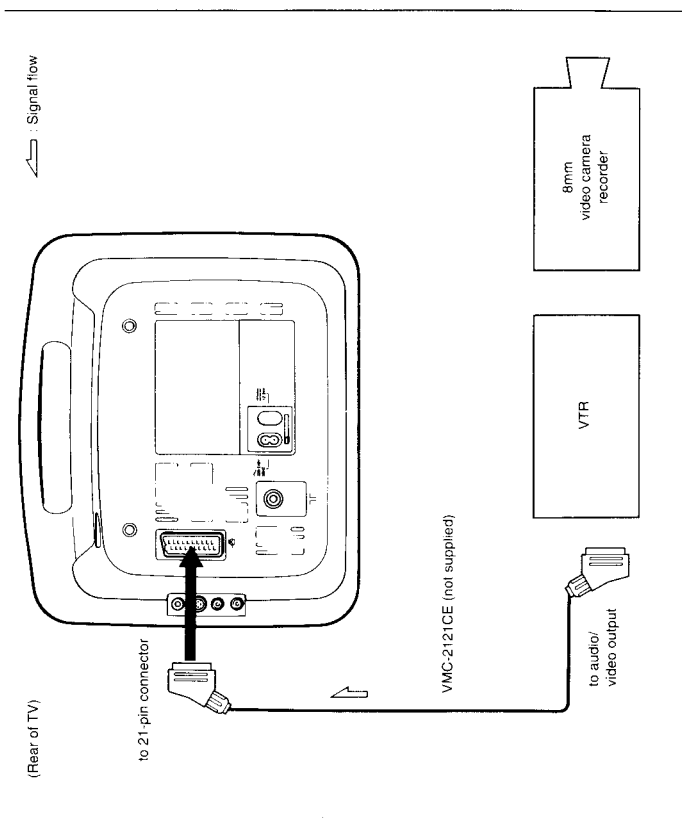
- 1 Select AV 2 mode by pressing \square/\oplus on the TV or \oplus on the Remote Commander until $\oplus 2$ appears on the screen.

- 2 Set the equipment to playback mode.

To return to TV mode

Press \square on the Remote Commander to return directly to TV mode.

Connecting video equipment using the 21-pin connector



Operating your equipment

- 1 Select AV 1 mode by turning on the equipment.


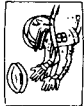
- 2 Set the equipment to playback mode.

To return to TV mode

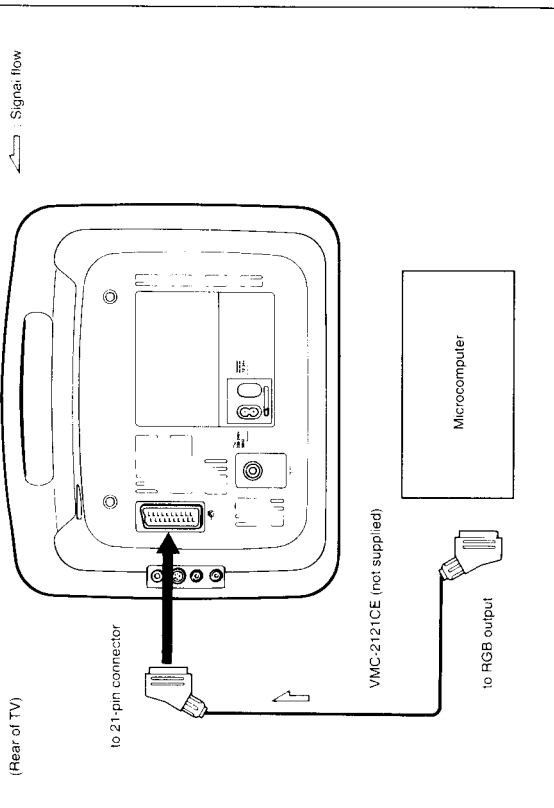
Press \square on the Remote Commander to return directly to TV mode, or turn the video equipment off.

Troubleshooting

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> Plug the TV in, and check the power connection. Press PROGR +/- on the TV or press PROGR +/- or the 0 - 9 buttons on the Remote Commander. Check the aerial connection. Check the TV/video input setting. Turn the TV off for 3 or 4 seconds and then turn it on again.
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> Adjust the picture with the picture adjustment button (page 50). Adjust the telescopic aerial.
Good picture, no sound	<ul style="list-style-type: none"> Press ⏮ on the TV or Remote Commander. Disconnect the headphones. If 🔊 is displayed on the screen, press 🔊 or ⏮ +/-.
No colour for colour programmes	<ul style="list-style-type: none"> Adjust the colour with the picture adjustment button. Adjust the telescopic aerial. Press 📺 on the Remote Commander to change colour systems.
Show and noise only	<ul style="list-style-type: none"> Check that it is an active or correct channel. Check the cable setting. Check aerial/cable connections.
 Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting CATV cable may improve the picture.
Try another channel. It could be station trouble.	

Connecting a microcomputer



To view the input from the microcomputer
 Select RGB input mode by pressing **📺** on the TV or **📺** on the Remote Commander until **📺** appears on the screen.

Notes

- When RGB-type equipment (like a microcomputer) is connected, you can adjust **📺** (picture) and **🔊** (bright), but not **🌈** (hue), **🔊** (colour) or **📺** (sharpness) (see page 50).
- If you connect a microcomputer or anything else to the 21-pin outlet, be sure to turn the connected equipment off when watching images coming in through the **📺** (S video) input jack. Otherwise, there may be interference to the picture being displayed.

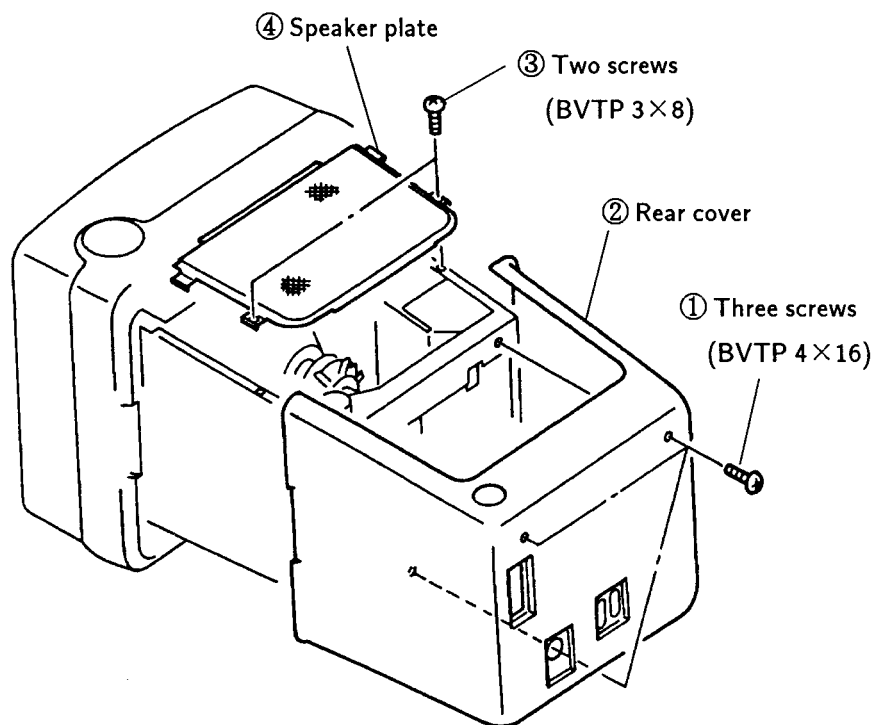
21 pin Euro Connector Configuration



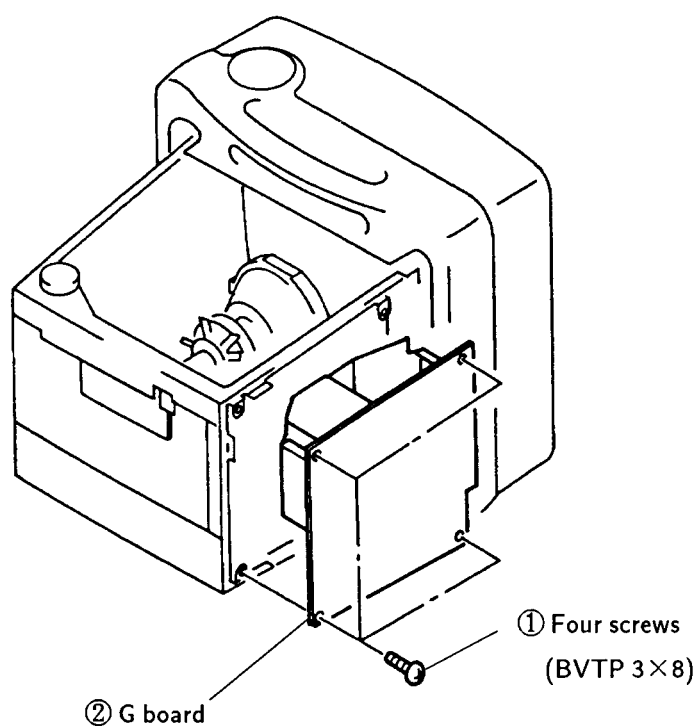
Connecting optional equipment

SECTION 2 DISASSEMBLY

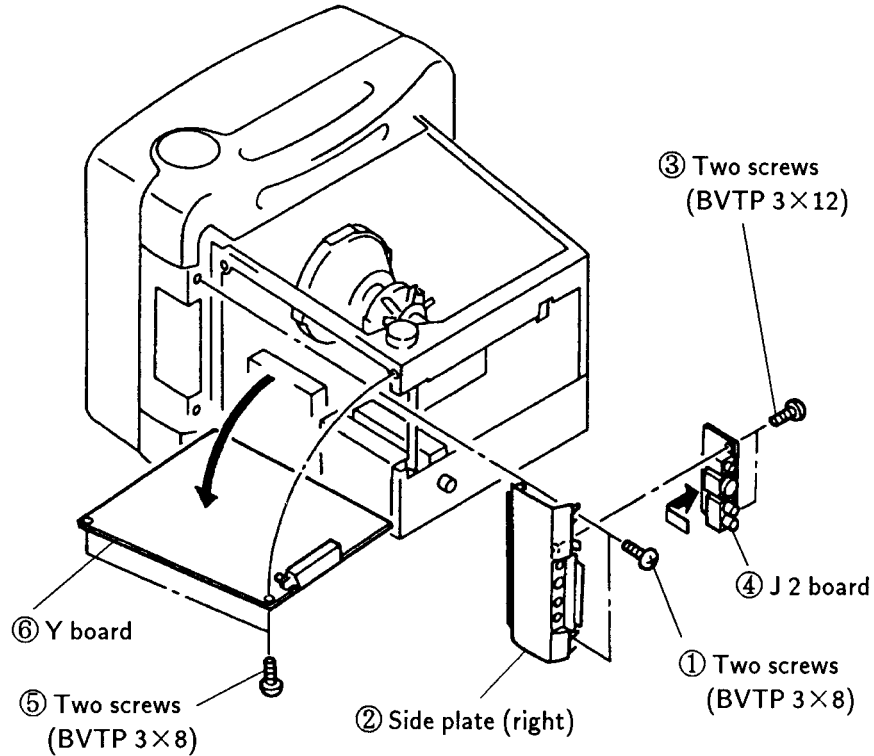
2-1. REAR COVER REMOVAL



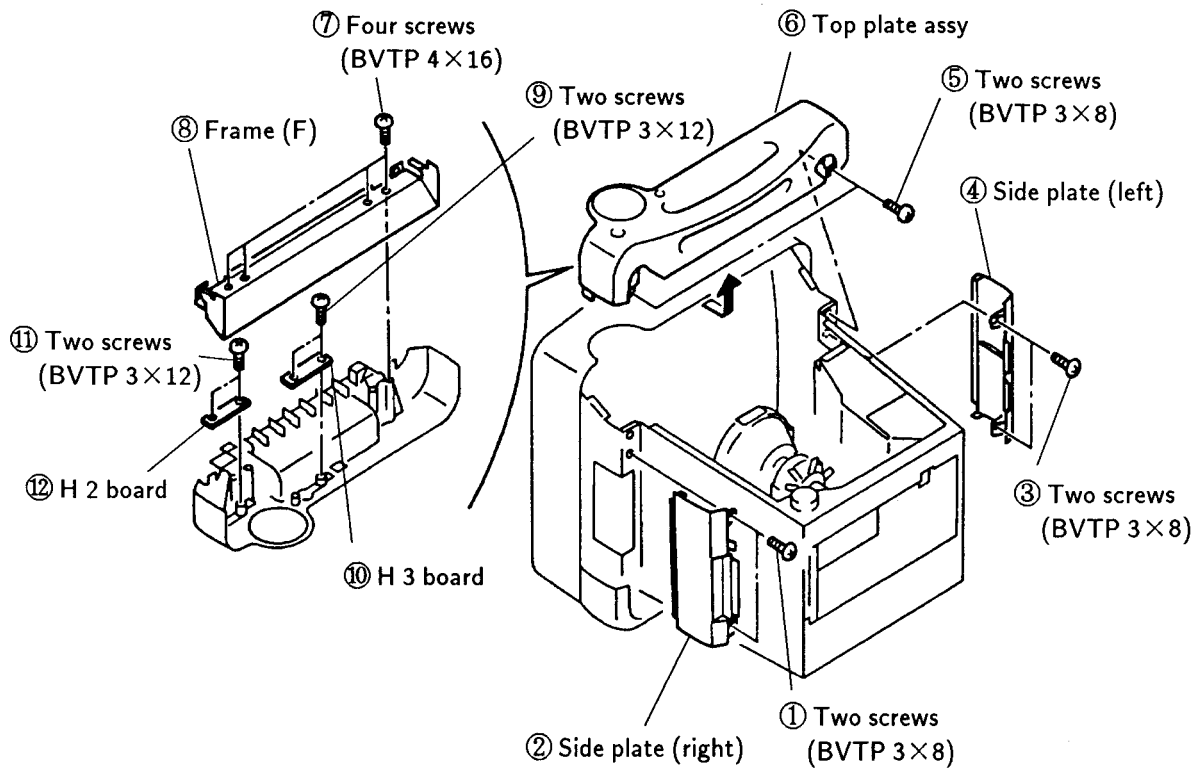
2-2. G BOARD REMOVAL



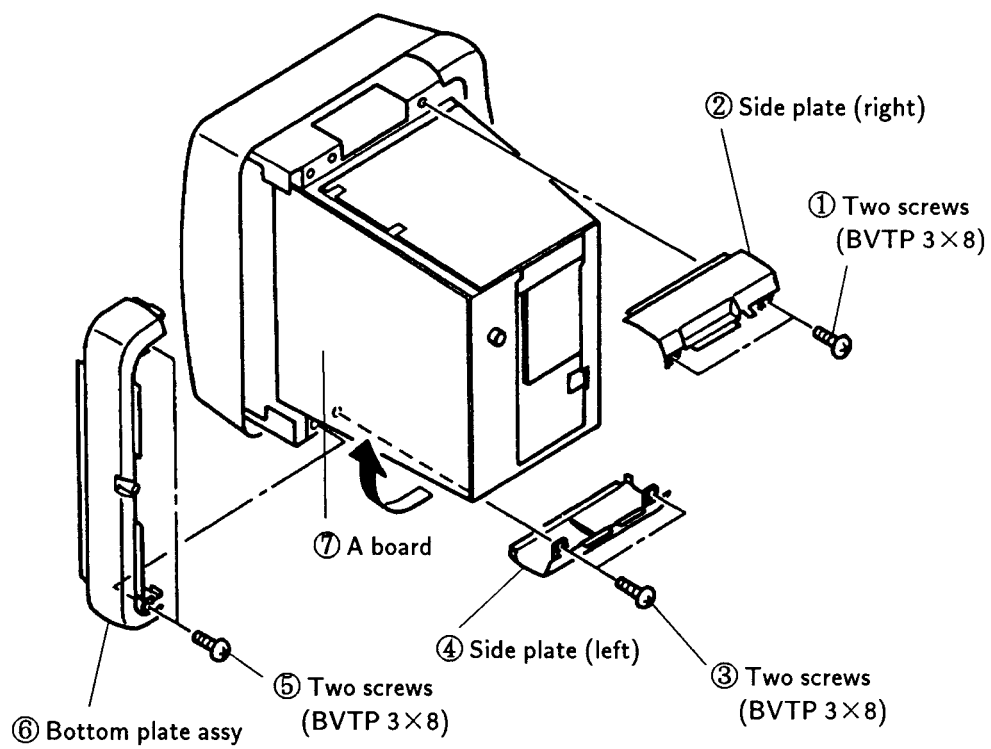
2-3. J 2 AND Y BOARD REMOVAL



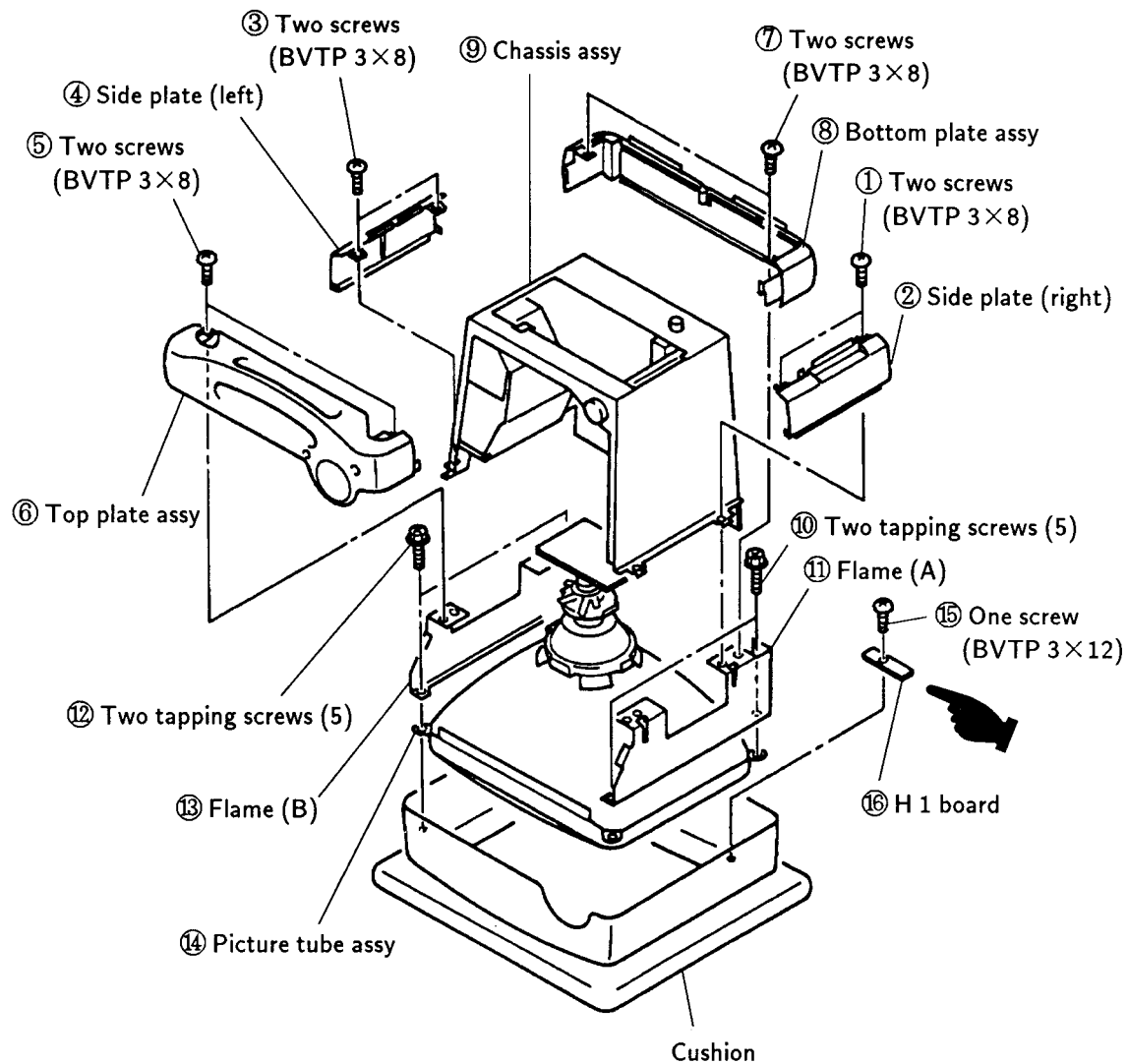
2-4. H 2 AND H 3 BOARD REMOVAL



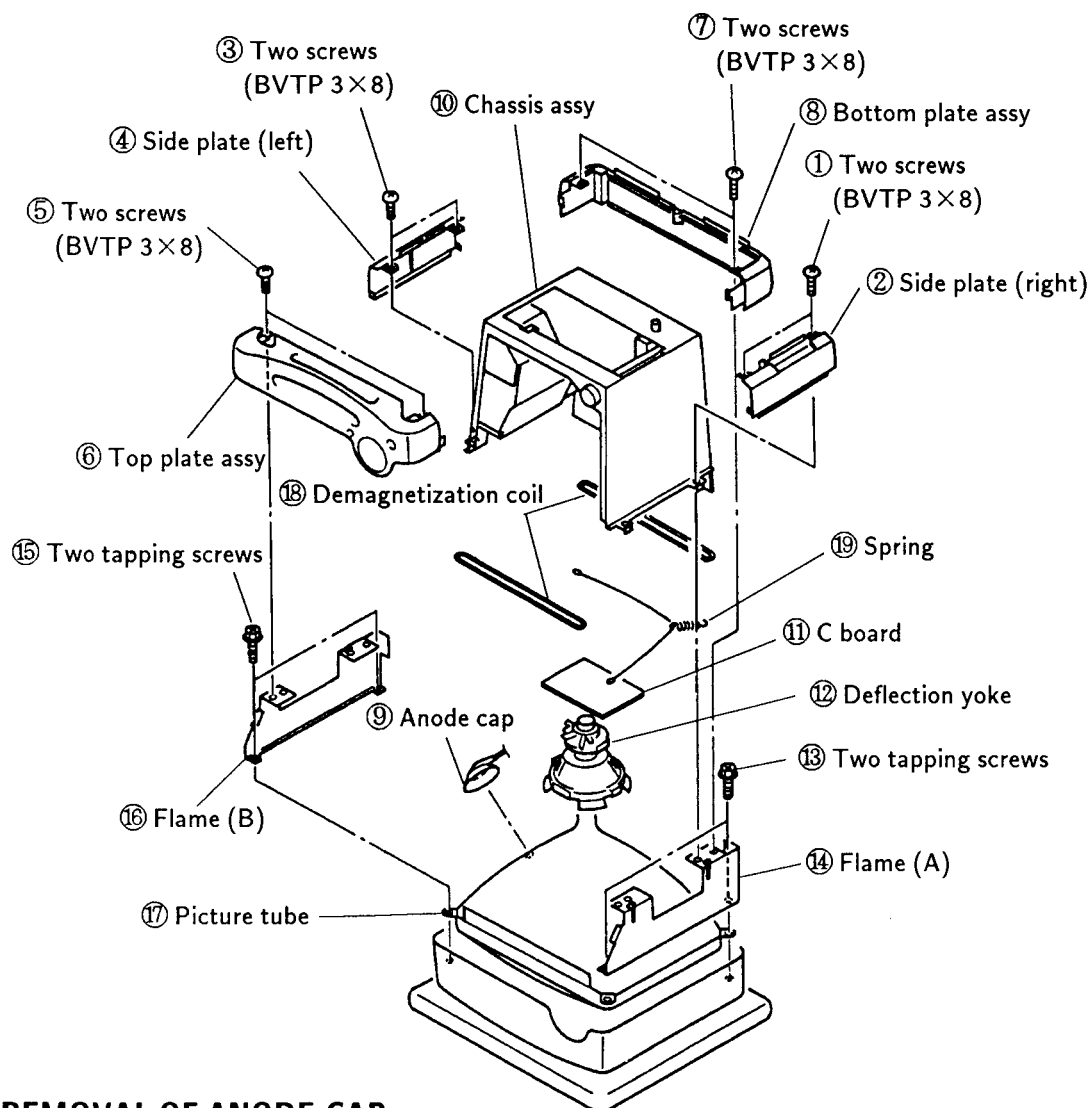
2-5. SERVICE POSITION



2-6. H 1 BOARD REMOVAL



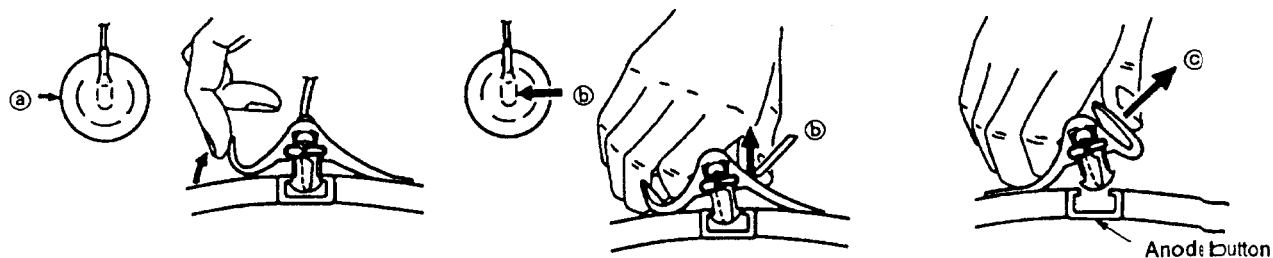
2-7. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

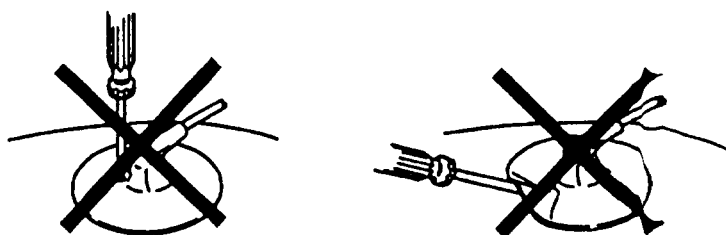
NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

• REMOVING PROCEDURES



• HOW TO HANDLE AN ANODE-CAP

- Don't hurt the surface of anode-caps with sharp shaped material!
- Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted. The controls and switch below should be set as follows unless otherwise noted :

- CONTRAST control..... 80%(or Normal by commander)
- ⚙ BRIGHTNESS control..... 50%

Preparation:

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser..

3-1. BEAM LANDING

Demagnetize with a degausser

1. Input a raster signal with the pattern generator.

CONTRAST	} normal
BRIGHTNESS	
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides evenly.
(Fig.3-1 to 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig.3-1)
5. Switch over the raster signal to blue and green confirm the condition.
6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
7. When landing at the corner is not right, adjust by using the disk magnets. (Fig.3-4)

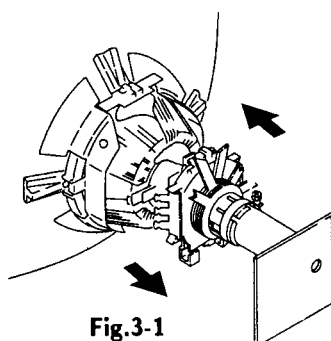


Fig.3-1

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G 2) and White Balance

Note: Test Equipment Required.

1. Color bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

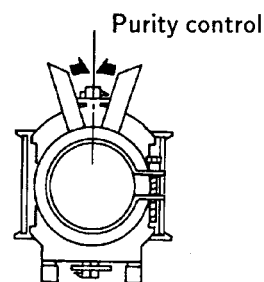


Fig.3-2

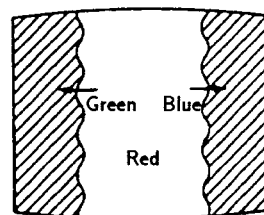


Fig.3-3

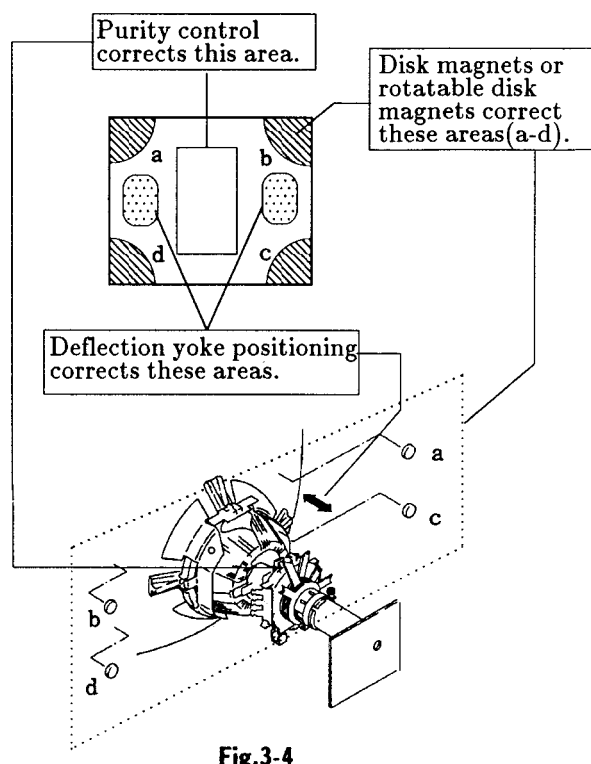


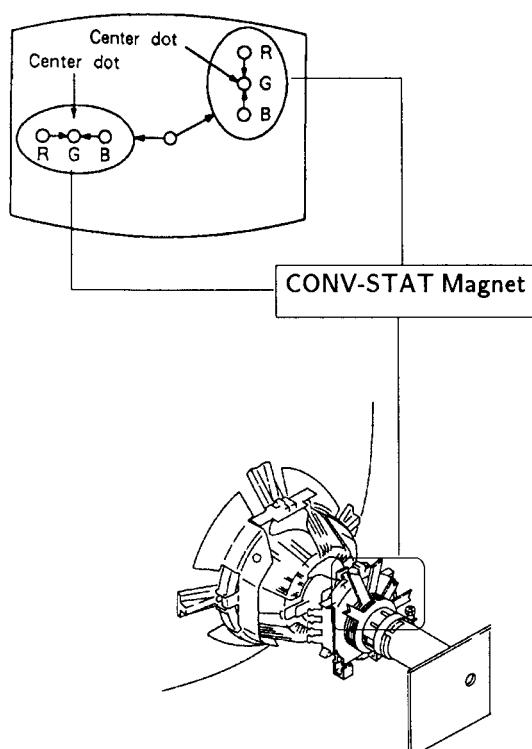
Fig.3-4

3-2. CONVERGENCE

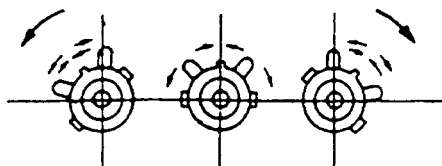
Preparation:

- Before starting, perform FOCUS, H.SIZE, and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

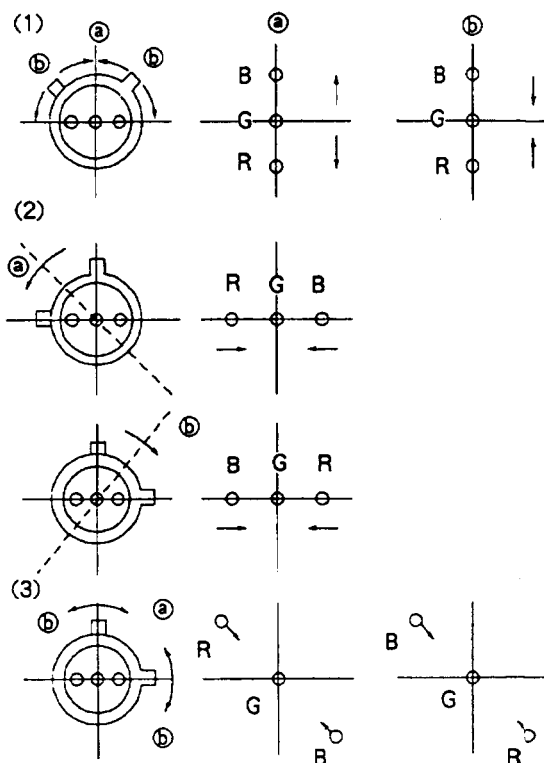
(1) Horizontal and Vertical Static Convergence



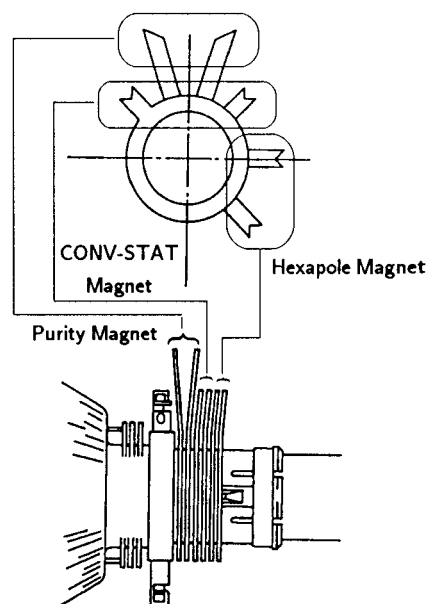
1. Adjust CONV-STAT Magnet to coincide red, green blue dots on the center of screen.
- Tilt the CONV-STAT magnet and adjust static convergence to open or close the CONV-STAT magnet.



2. When the CONV-STAT magnet is moved in the direction of arrow (a) and (b), Red, Green and Blue dots move as shown below.

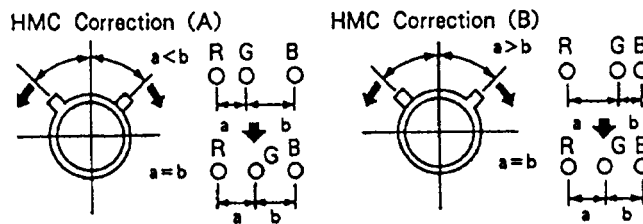


* IF the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.



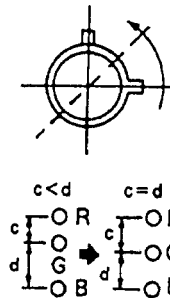
● HMC and VMC correction for BMC (6-pole) magnet.

1. HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

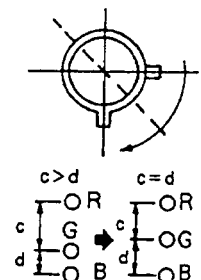


2. VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

VMC Correction (A)



VMC Correction (B)



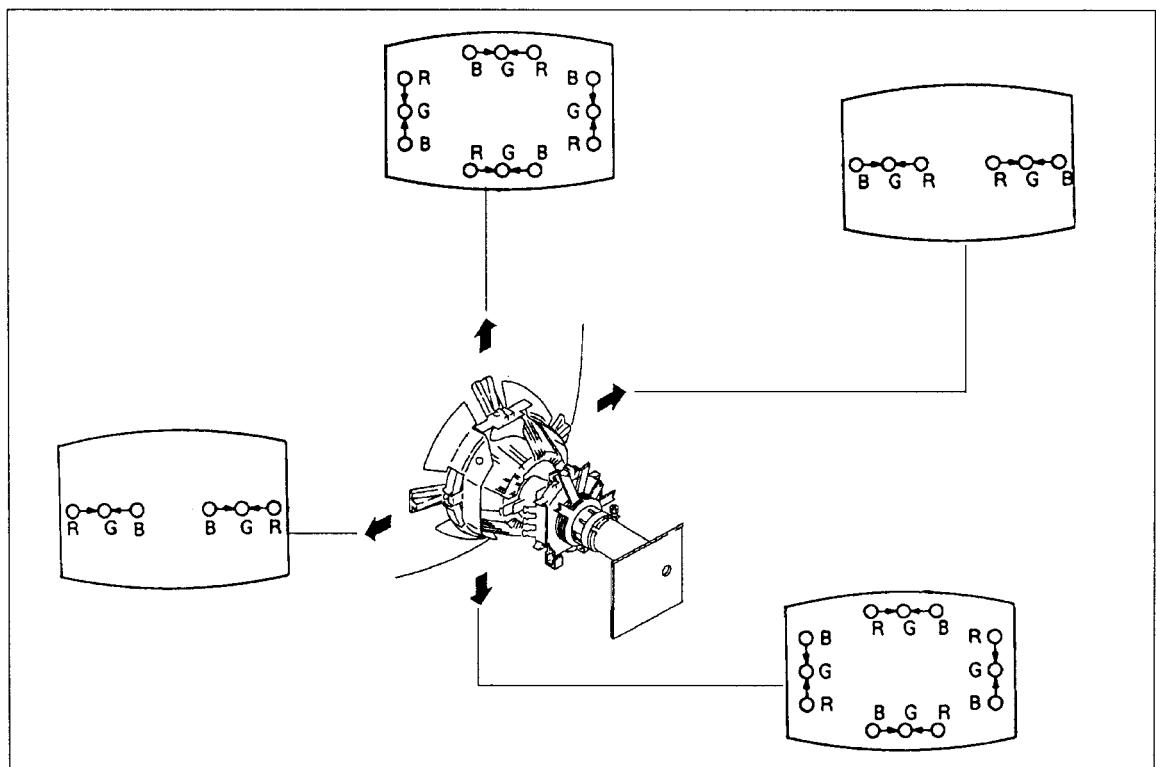
(2) Dynamic Convergence Adjustment

Preparation:

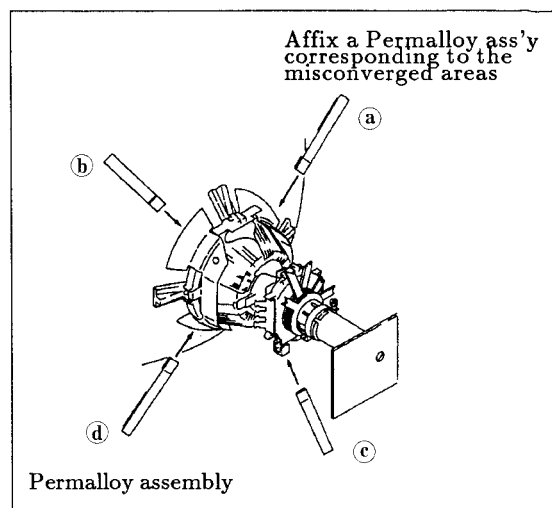
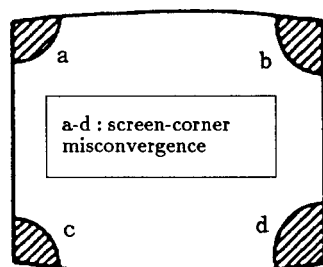
- Before starting perform Horizontal and Vertical static convergence Adjustment.

1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.

3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



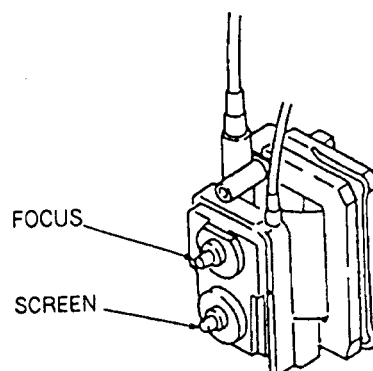
(3) Screen-corner Convergence



3-3. FOCUS

1. Input a monoscope signal.

CONTRAST	} normal
BRIGHTNESS	
2. Adjust FOCUS control for a best picture at the center and both sides of the screen.



3-4. SCREEN (G 2) and WHITE BALANCE AUTOMATIC ADJUSTMENT

(Adjustment with remote commander in service mode)

(1) G 2 adjustment screen

1. Set picture and brightness to STANDARD.
2. Apply external voltage 150 VDC to each of the red, green, and blue cathodes.
3. Adjust the G 2 control knob to a position immediately before the retrace line on the screen disappears.

(2) White balance adjustment (See the table of service items)

Call item NOs. 13-18 in service mode and adjust each.

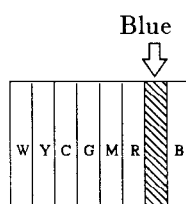
1. Receive the color bar place the set into service mode.
2. Set picture to MINIMUM and brightness to STANDARD.
3. Set cut-off (red, green and blue) to MINIMUM and drive (green and blue) to CENTER.

Cut-off

DRIVE

No	Item name	Data	No	Item name	Data
16	G BKG	64	13	R BKG	100
17	B BKG		14	G BKG	
18	R BKG		15	B BKG	

4. Adjust brightness compensation so that the blue stripe section of the color pattern shines dimly.



5. Switch the pattern generator signal to ALL WHITE.
6. Adjust white balance with each cut-off.
7. Set picture to MAXIMUM and adjust white balance with the green and blue drive.
8. Repeat the above until white balance between MINIMUM and MAXIMUM of picture is obtained.
9. Switch the pattern generator signal to the color pattern signal.
10. Adjust brightness compensation so that the blue stripe section on the screen shines dimly when picture is set to MINIMUM.

3-5. ADJUSTMENT PROCEDURE

(Reading memory contents)

- (1) Confirm that the set has started up in the user mode. (CB) . Press the picture quality adjustment key \leftrightarrow to leave the set in normal state. Turn off the power the set.
- (2) Turn on the power to the set while holding down the service switch located on the rear panel of set. Confirm that SERVICE is indicated on the screen.
- (3) press the \swarrow key. Confirm that indication R on the upper right corner of the screen blinks.
- (4) Press the C key while indication R is blinking. Thus, the contents of NVM are read in.

Note : If IC 306 is a new one (e.g., entirely new one immediately after replacement), do not execute steps (3) and (4) above.

3-6. ADJUSTMENT PROCEDURE

(Writing the contents of adjustment into memory)

When adjustments are completed.

- (1) Press the \times key Confirm that indication W on the upper right corner of the screen blinks.
- (2) Press the C key while indication W is blinking. W stops blinking and the STBY LED lights. Writing to memory is completed when W and LED go out.

NO	Item name	Data
13	R DRIVE	0~127
14	G DRIVE	0~127
15	B DRIVE	0~127
16	G BKG	0~255
17	B BKG	0~255
18	R BKS	0~255

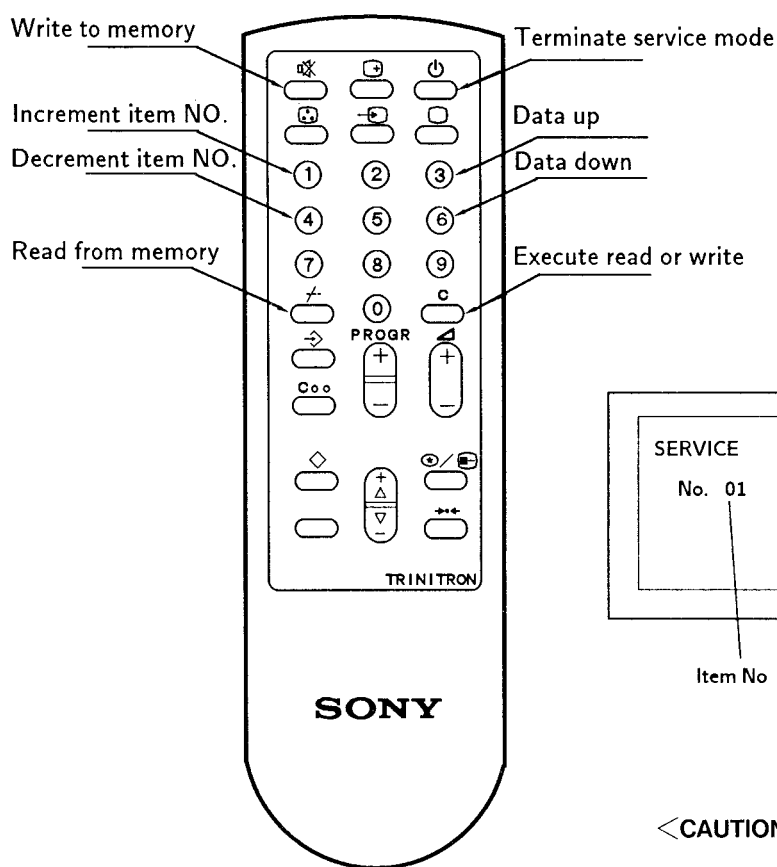
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. COMMANDER OPERATION IN SERVICE MODE

[Electrical adjustment in service mode]

Electrical adjustments for service with this type of model can be accomplished by using the remote commander RM-818 included with the set.

Figure : Key assignments in service mode



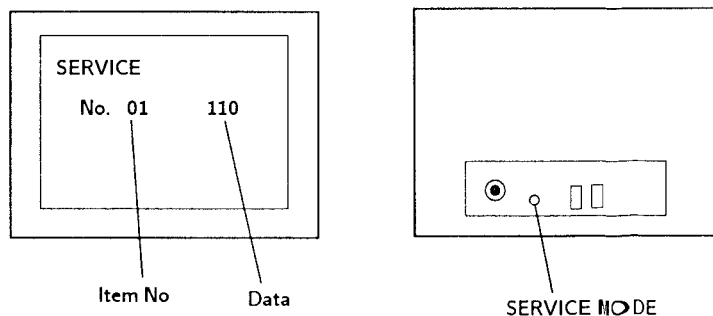
(1) Unusable keys

- ① 2, 5, 7, 8, 9, 0 among numeric keys
② \rightarrow C00 \diamond , \odot , \boxplus (+/-) These keys are asserted when the key is pressed while holding down the \square key.

(2) Usable keys (incl. those which do not change the meaning)

- ① \square
② \leftarrow , \square
③ \boxminus
④ PROG (+/-)
⑤ \boxplus , \boxminus (+/-)
⑥ \boxtimes
⑦ \triangle (+/-)

Screen in service mode

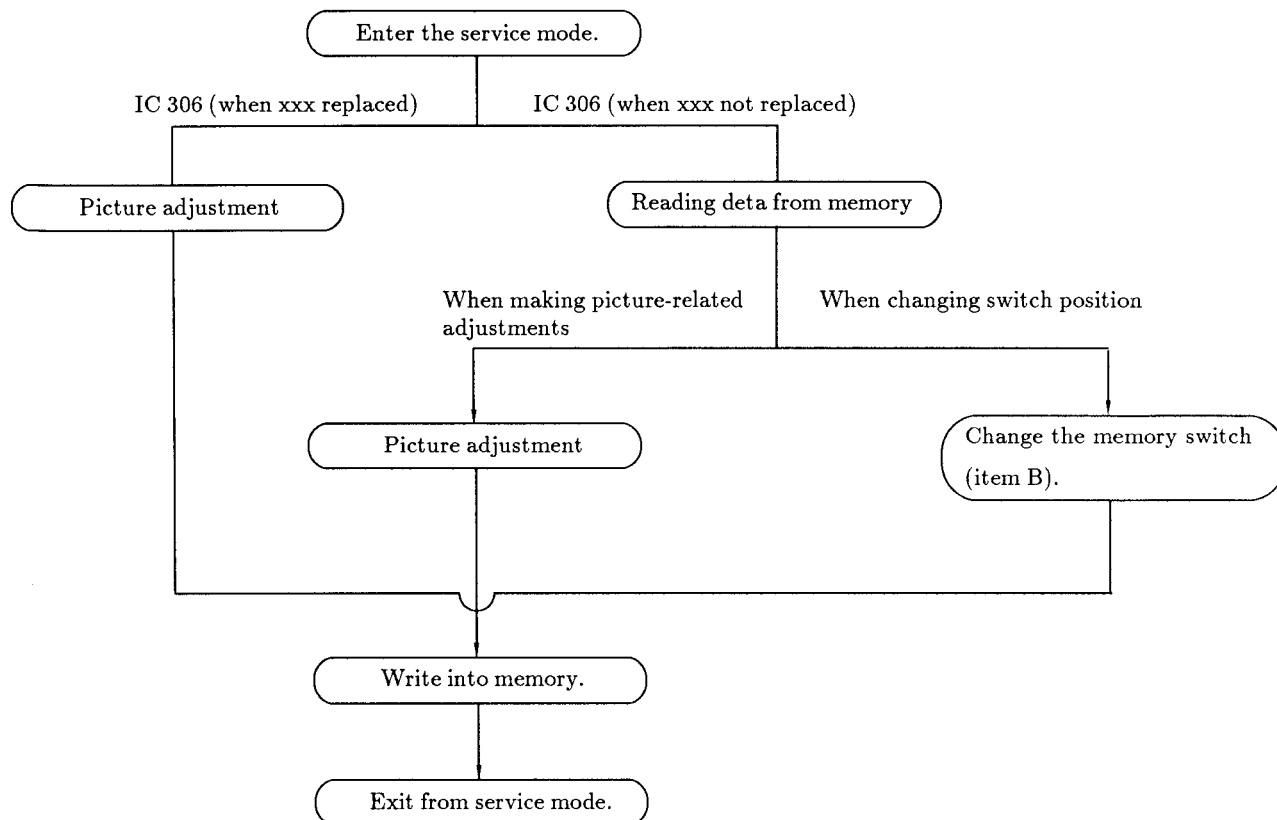


<CAUTION>

The service mode is used to prohibit the following.

- (1) Data writing in the non-signal condition.
- (2) Releasing the service mode when the power supply has been turned off with the commander.
(Be sure to turn off the main power supply of the unit before releasing.)
- (3) Power off during writing (while the LED is lit)
- (4) Switching of the color system during service item No.1 (VC O)
- (5) Data writing during the NTSC 443 mode.

How to adjust in service mode

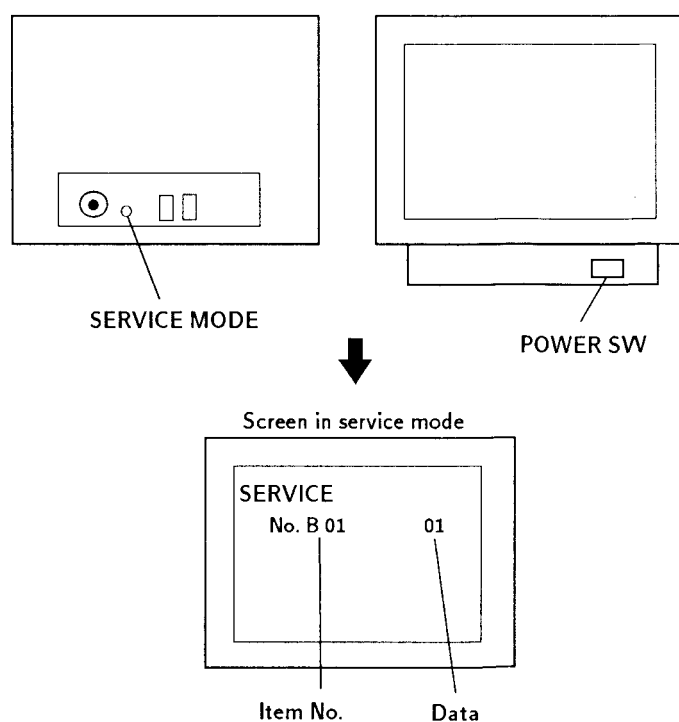


※ Note : Do not turn off the power before writing adjustment data into memory. If the power is off, your adjustment data cannot be stored in memory. Always be sure to write data into memory after making adjustments.

[Basic adjustment in service mode]

1. Entering the service mode

- ① Insert a narrow screw-driver into the hole located on the rear cover of the TV set. When this is done, the switch located at the back of the hole is pressed.
- ② While pressing the switch, plug the power cord of the TV into the AC outlet. (Or you may turn on the power of the TV from standby state by using the remote commander.) A message "SERVICE NO. 01 00" will be displayed in green on the screen as the unit enters the service mode.

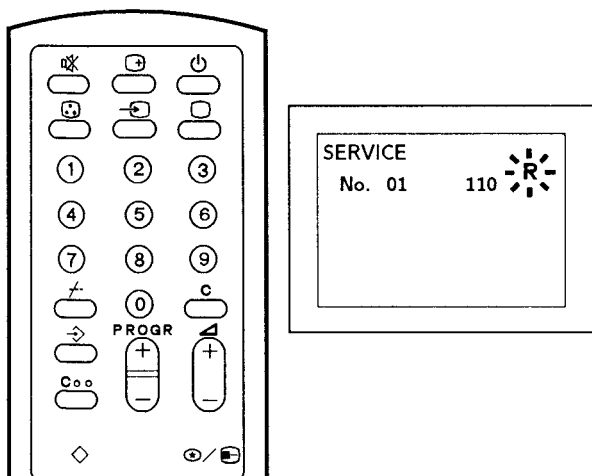


2. Reading data from memory

- ① Read the adjustment values of all items and switch-setting values from memory.

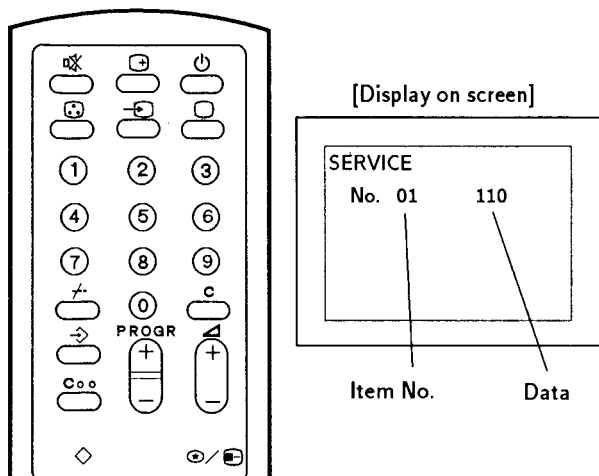
To do this, press the [F] button, then the [C] button on the remote commander. When [F] is pressed, the letter R blinks on the upper right corner of the screen. When [C] is pressed during this time, the letter R stops blinking and data read is terminated.

Note: When you replaced IC 306, do not read data from memory before writing new data.



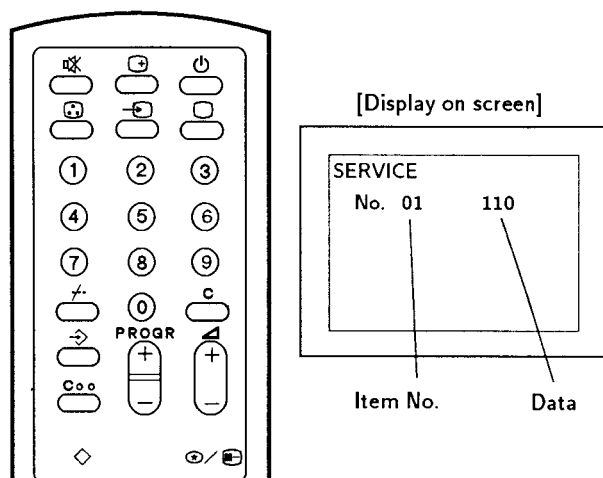
3. Adjusting picture quality

- ① Select one of item Nos. 01-29 that you want to be adjusted by using the remote commander buttons [1] and [4].
- ② Adjust picture quality using buttons [3] and [6] until the appropriate picture quality is obtained and the set values are satisfied.



4. Changing switch positions

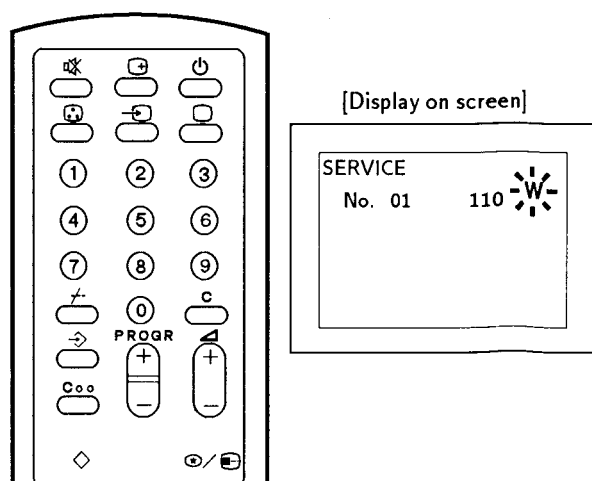
- ① Select one of item Nos. B 01-B 02 that you want to be changed by using the remote commander buttons [1] and [4].
- ② The internal switches can be changed over using buttons [3] and [6]. Normally, you specify standard values. (See the table of service items.)



5. Writing to memory

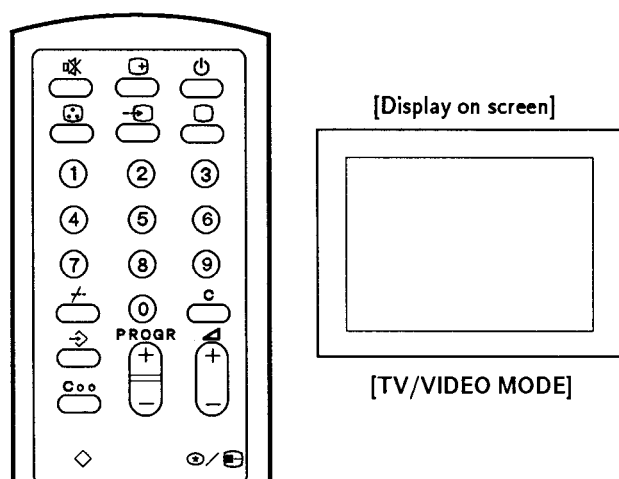
- ① After adjustment, adjust the switch-setting values, then write the adjustment data to memory using the [F] button. (Data cannot be written by only using the [F] button.)

Press the [C] button while the character ":" is blinking on the screen (within 3 seconds). It takes approximately 3 seconds from when the [C] button is pressed to when writing to memory is completed. Writing to memory is completed when the character ":" stops blinking and goes out.



6. Terminating service mode

- ① Unplug the power cord of the TV and plug it in again. When this is done, the indication of SERVICE MODE goes out and the unit enters normal TV mode.



4-2. A BORAD ADJUSTMENTS

RF AGC Adjustment

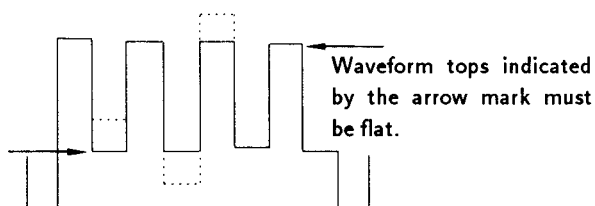
1. Receive the color bar signal. (RF signal)
2. Picture : 80%
3. Brightness : standard
4. Adjust the IF pack AGC knob until snow noise and cross modulation are eliminated.
5. Confirm the above in each channel.

VCO Adjustment

1. Receive the color bar signal and place the set into service mode.
2. Set a value with item 1 so that the screen beats.

SUB COLOR and SUB HUE Adjustments

1. Receive the color bar signal and place the set into service mode.
2. Connect an oscilloscope to the TP (blue output) of the circuit board C, then press the STANDARD button using the remote commander.
3. Next, adjust the oscilloscope waveform with item 19 and 20 until the waveform shown below is obtained. Then, set sub-color to a value three steps up.



NO	Item name
19	Sub hue
20	Sub color

Note :

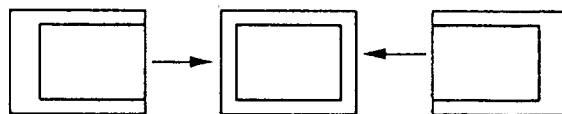
When sub-contrast, sub-hue or sub-color is adjusted, picture qualities in video 1 and video 2 are no longer STANDARD (independently stored in memory). Select video 1 and video 2 using the remote commander (TV/VIDEO) button, then press the (STANDARD) button for each.

Picture qualities in video 1 and video 2 can be made to STANDARD even when you set "channel selection , standad" with buttons (8) and (12) after writing data to memory.

ADJUSTING DEFLECTION

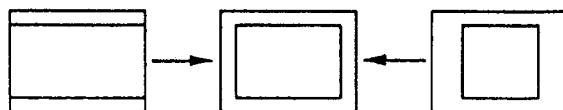
Horizontal position (item NO. 9) 0~31

H. CENT



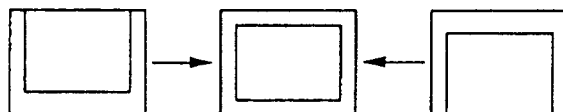
Horizontal amplitude (item NO. 10) 0~63

H. SIZE



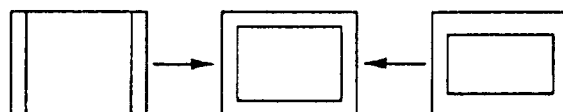
Vertical position (item NO. 2) 0~63

V. CENT



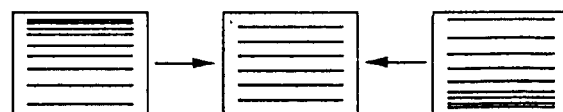
Vertical amplitude (item NOs. 3, 4) 0~255

V. SIZE



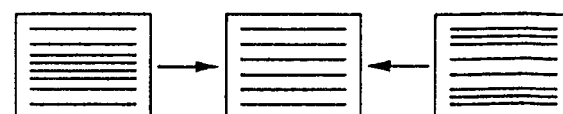
Vertical linearity (item NOs. 5, 6) L : 0~63, H : 0~63

V. ANGLE



Vertical character-S correction (item NOs. 7, 8)

L : 0~31, H : 0~255



• ITEM LIST

No.	Item name	Register name			Data range	Adjustment data			Remarks	Signal
		IC	LABEL	Bit length		PAL	SECAM	NTSC		
1	VCO	PVP	VCOA	8	(-128)0~(+127)255	ADJ		ADJ	Adjusted with VCO free-run	CB
2	V center	Microprocessor	PWM output	8	0~63	ADJ	←	ADJ	Dummy-IM bus adjustment	SP CB
3, 4	Note 1) V size H&L	DPU	H0L, H0H	8+8	L(0~15), H(0~255)	ADJ	←	ADJ	V amplitude	"
5, 6	Note 1) V linearity H&L	DPU	S1L, S1H	8+6	L(0~63), H(0~63)	ADJ	←	ADJ	V symmetry	"
7, 8	Note 1) V character-S correction H&L	DPU	S0L, S0H	8+8	L(0~31), H(0~255)	ADJ	←	ADJ	S correction	"
9	H center	DPU	SP	5	0~31	ADJ	←	ADJ		"
10	H size	Microprocessor	PWM output	8	0~63	ADJ	←	ADJ	Dummy-IM bus adjustment	"
11	H blanking	DPU	BP	6	0~63	←	←	←		"
12	ACC level	PVP	BA	6	0~63	←	←	←		CB
13	R drive	PVP	WR	7	0~127	ADJ	←	←	AMB to be turned off.	W/CB
14	G drive	PVP	WG	7	0~127	ADJ	←	←	"	"
15	B drive	PVP	WB	7	0~127	ADJ	←	←	"	"
16	G cut-off	PVP	CG	8	0~255	ADJ	←	←	"	"
17	B cut-off	PVP	CB	8	0~255	ADJ	←	←	"	"
18	R cut-off	PVP	CR	8	0~255	ADJ	←	←	"	"
19	Sub-hue 1	DTI	FSR 1, 2	8, 8		←		ADJ	Shared with hue when DTI is on.	CB
20	Sub-color 1	DTI	FSR 1, 2	8, 8		ADJ		ADJ	Shared with color when DTI is on.	"
21	Sub-bright	PVP	BR	8	0~255				Shared with bright (user controllable).	W
22	External RGB contrast	PVP	RGBC	6	0~63	←	←	←		CB
23	Y/C delay	PVP	LD	4	(-4) 0~(+4)8	←	←	←		SP CB
24	External RGB delay Y	DTI	LDA	9	0~511	←	←	←		
25	External RGB delay C	DTI	CDA	9	0~511	←	←	←		
26	Sub-hue 2	SPU	SR, SB	6, 6	0~63		←	←		CB
27	Sub-color 2	SPU	SR, SB	6, 6	0~63		←	←		"
28	DC offset R	SPU	OR	6	0~63		←	←		"
29	DC offset B	SPU	OB	6	0~63		←	←		"
B 01	Auto White Balance					0 : off (without IK pulse) 1 : off (IK pulse) 2 : Auto cut-off 3 : on				
B 02	DTI					0 : off 1 : on				

① ADJ : Must be adjusted for each set.

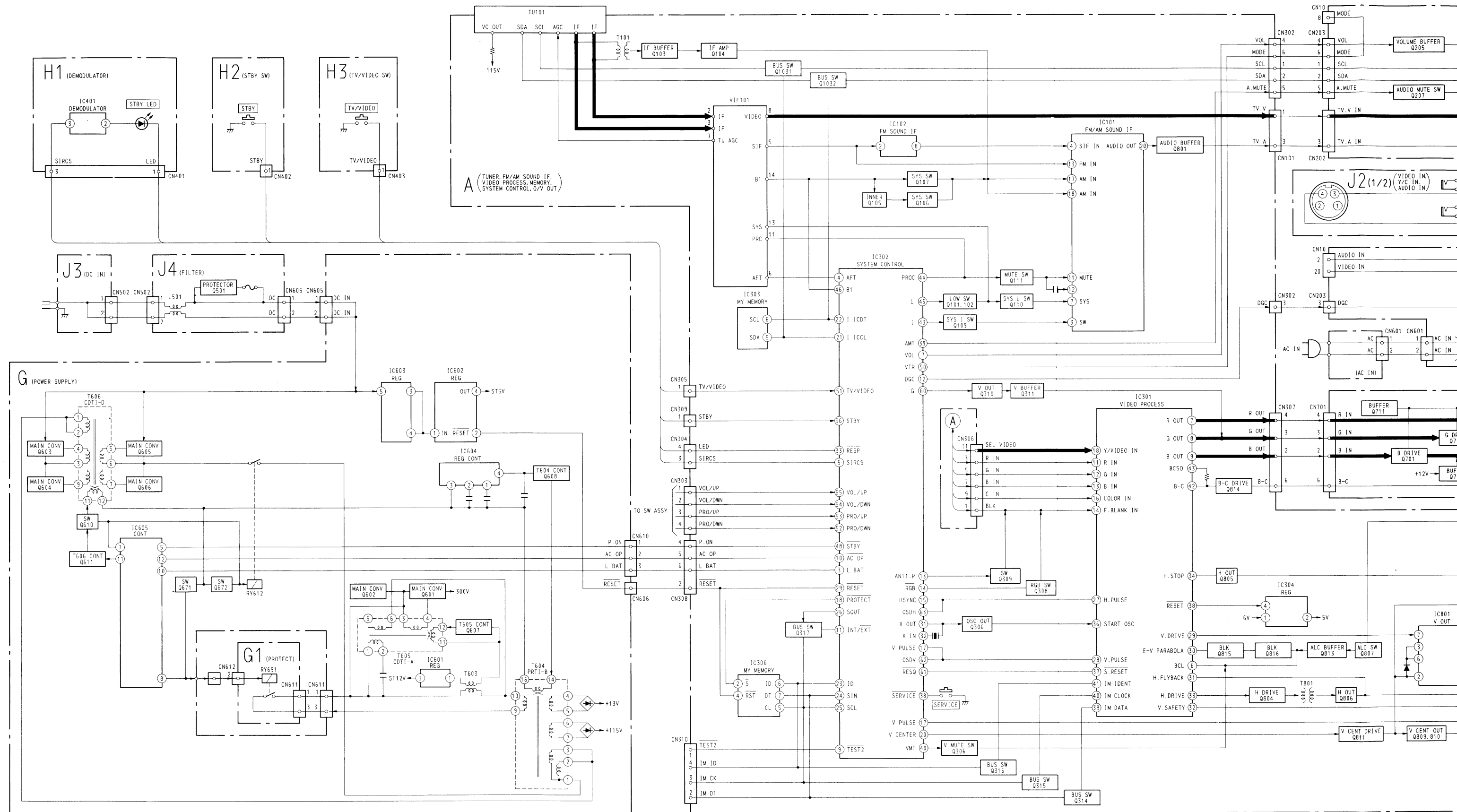
② ← : Must be treated as reference (fixed) value based on deviation between sets.

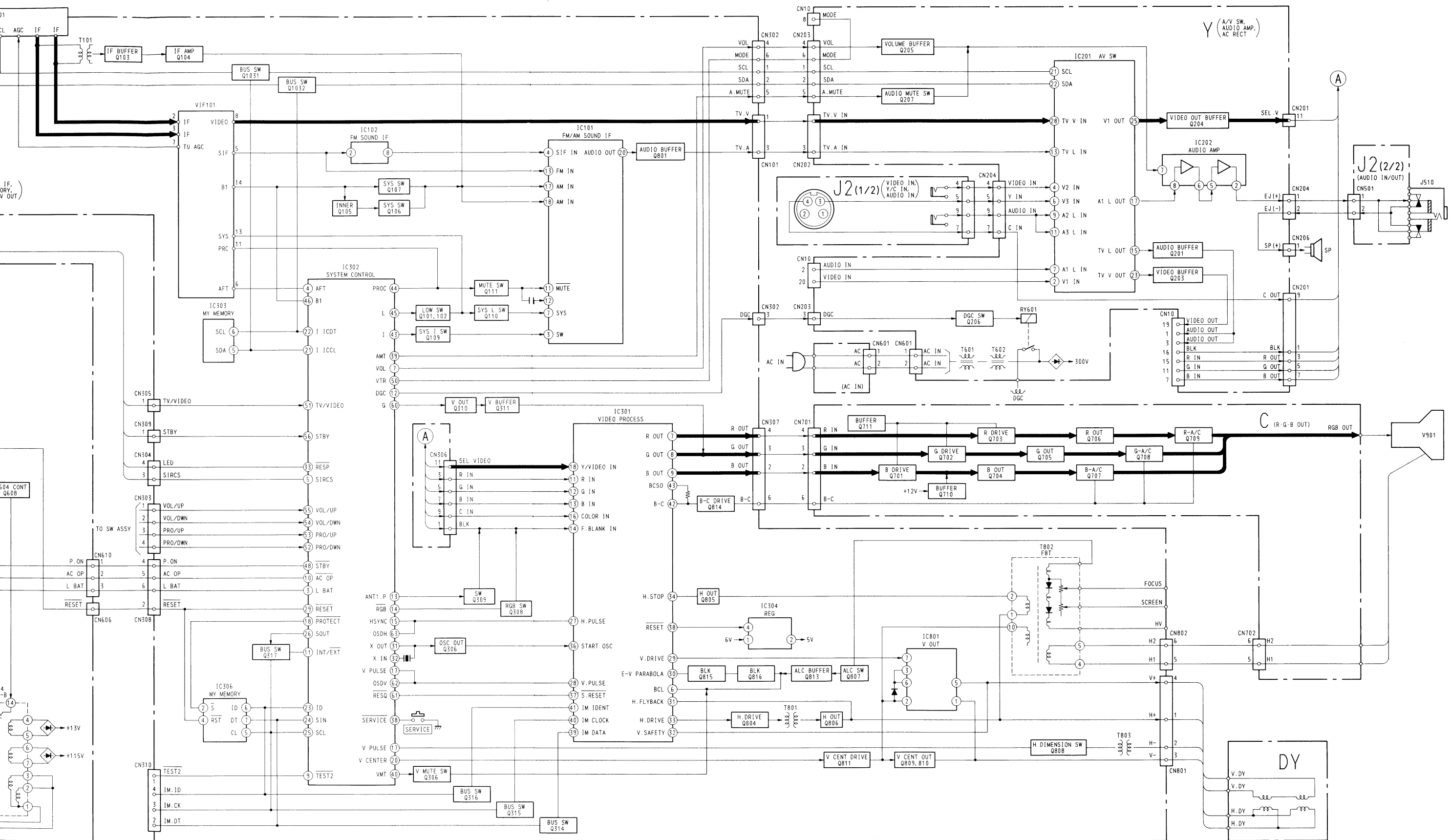
③ AWB : RGB cut-off and drive are automatically adjusted. [Mode 0] without IK pulse, countermeasures against claims ; [Mode 1] only A WB function unavailable, adjustment mode ; [Mode 2] Auto cut-off function only ; [Mode 3] Auto white balance function

Note 1 : Two adjustment modes are available, L-byte (fine adjustment) and H-byte (rough adjustment).

SECTION 5 DIAGRAMS

5-1. BLOCK DIAGRAM

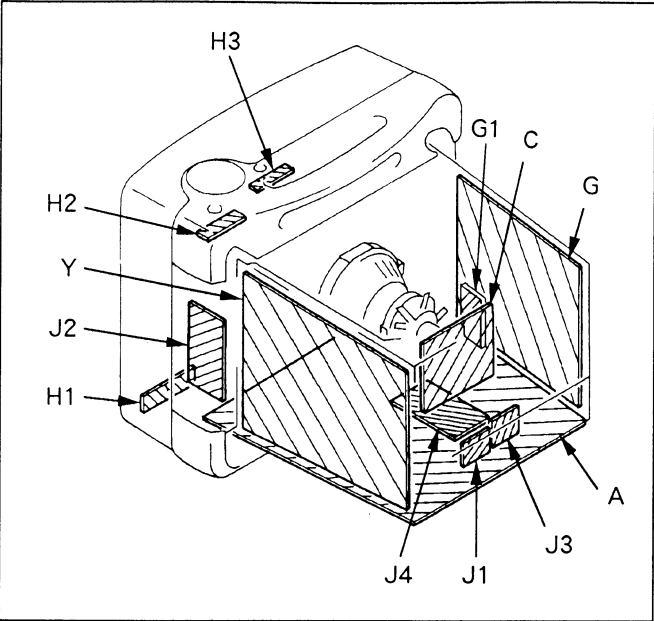




A

TUNER FM/AM SOUND I
VIDEO PROCESS MEMOR
SYSTEM CONTROL H/V C

5-2. CIRCUIT BOARDS LOCATION



Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS — CONDUCTOR SIDE —

Note :

- All capacitors are in μF unless otherwise noted.
pF : μF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

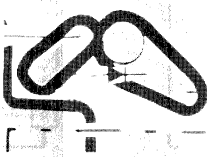
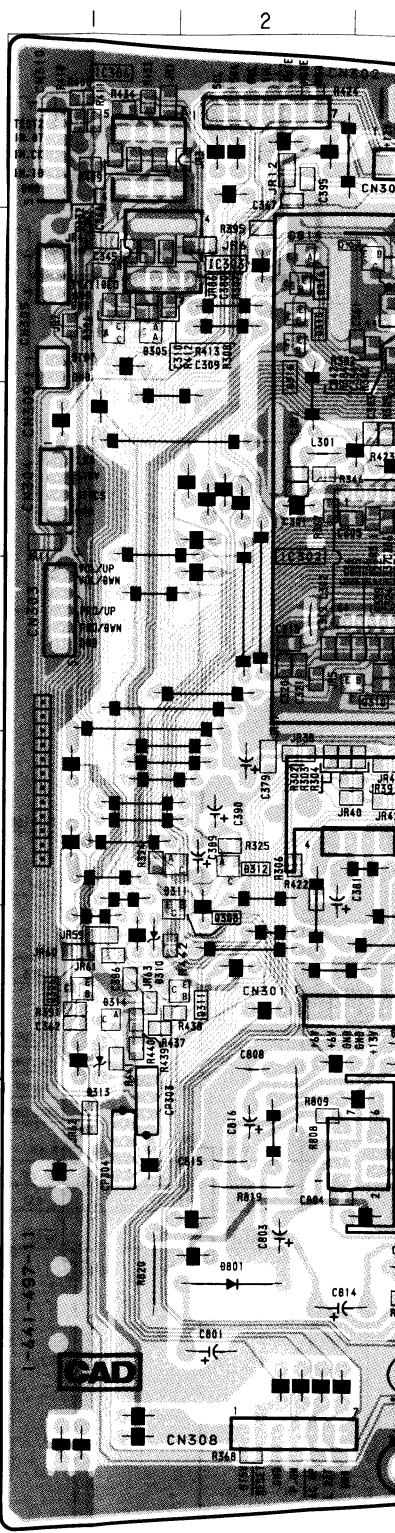
Pitch : 5 mm
Rating electrical power 1/10W

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 M Ω digital multimeter.
- Readings are taken with a PAL color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B- bus.
- : signal path.

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

I C		D I O D E	
IC101	D-7	D101	C-7
IC102	D-7	D102	C-8
IC301	B-4	D305	D-6
IC302	C-4	D306	E-6
IC303	B-1	D310	E-8
IC304	E-3	D311	E-8
IC305	E-4	D312	E-8
IC306	A-1	D313	E-7
IC801	G-3	D314	D-7
T R A N S I S T O R		D315	D-8
		D801	D-8
		D802	F-1
		D807	C-5
		D810	F-2
		D811	B-3
		D812	D-3
		D813	F-2
		D814	B-2
		T E S T P O I N T	
		TP103	B-9
Q101	C-7		
Q102	C-8		
Q103	D-6		
Q104	E-6		
Q105	E-8		
Q106	E-8		
Q107	E-8		
Q108	E-7		
Q109	D-7		
Q110	D-8		
Q111	D-8		
Q306	F-1		
Q307	C-5		
Q308	F-2		
Q309	B-3		
Q310	D-3		
Q311	F-2		
Q314	B-2		
Q315	B-2		
Q316	B-2		
Q317	C-5		
Q804	H-3		
Q805	H-6		
Q806	F-6		
Q807	H-6		
Q808	F-4		
Q809	H-5		
Q810	H-5		
Q811	H-6		
Q813	G-5		
Q814	A-4		
Q815	B-4		
Q816	B-3		
Q1031	C-7		
Q1032	C-6		

— A board —



NOTE:

The circuit
600 Vp-p.
inspection

A

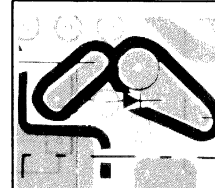
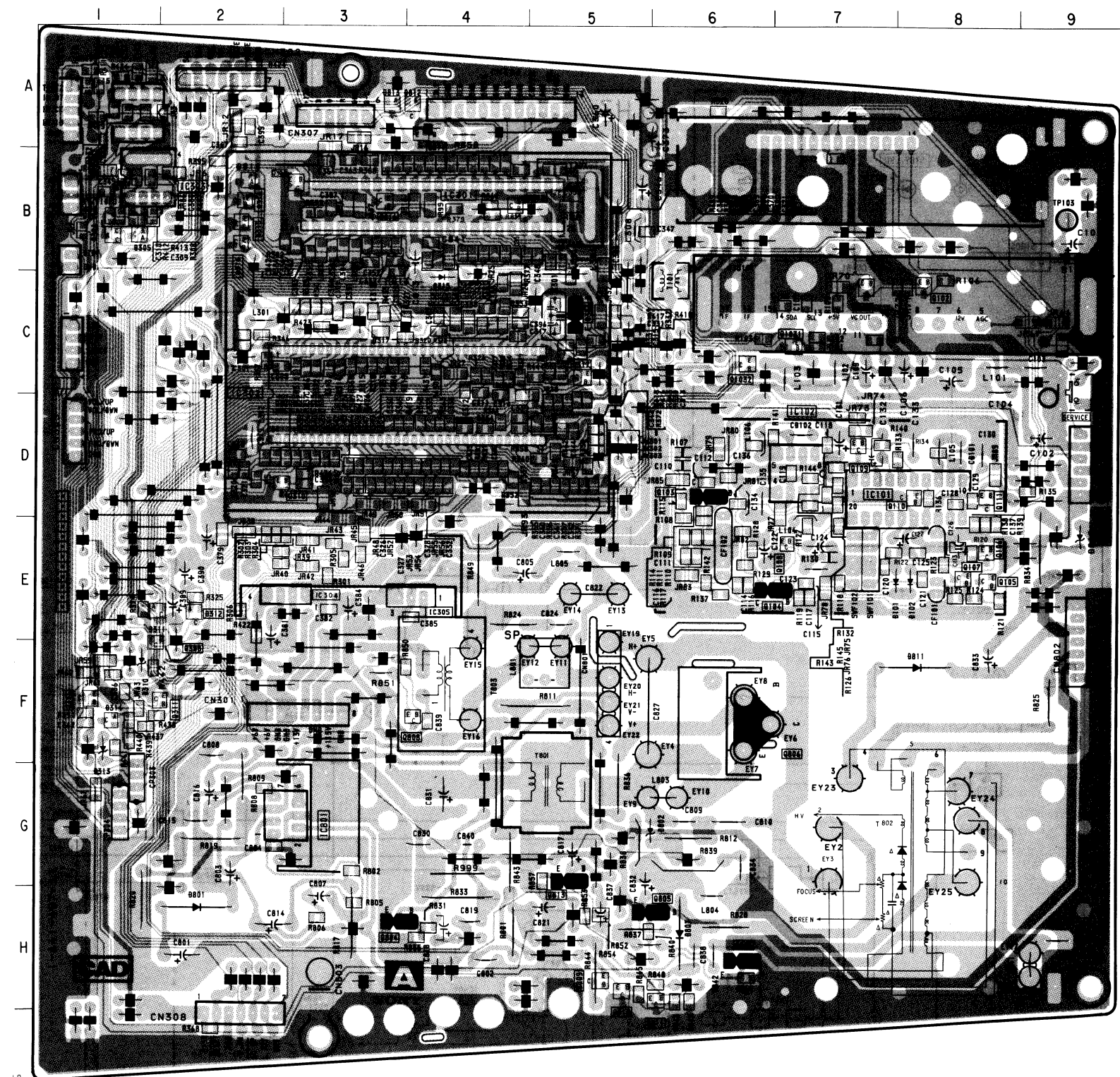
(TUNER FM/AM SOUND IF
VIDEO PROCESS MEMORY
SYSTEM CONTROL H/V OUT)

Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

— A board —

I C		D I O D E	
IC101	D-7	D101	C-7
IC102	D-7	D102	C-8
IC301	B-4	D305	D-6
IC302	C-4	D306	E-6
IC303	B-1	D310	E-8
IC304	E-3	D311	E-8
IC305	E-4	D312	E-8
IC306	A-1	D313	E-7
IC801	G-3	D314	D-7
T R A N S I S T O R		D315	D-8
Q101	C-7	D801	D-8
Q102	C-8	D802	F-1
Q103	D-6	D807	C-5
Q104	E-6	D810	F-2
Q105	E-8	D811	B-3
Q106	E-8	D812	D-3
Q107	E-8	D813	F-2
Q108	E-7	D814	B-2
Q109	D-7	T E S T P O I N T	
Q110	D-8	TP103	B-9
Q111	D-8		
Q306	F-1		
Q307	C-5		
Q308	F-2		
Q309	B-3		
Q310	D-3		
Q311	F-2		
Q314	B-2		
Q315	B-2		
Q316	B-2		
Q317	C-5		
Q804	H-3		
Q805	H-6		
Q806	F-6		
Q807	H-6		
Q808	F-4		
Q809	H-5		
Q810	H-5		
Q811	H-6		
Q813	G-5		
Q814	A-4		
Q815	B-4		
Q816	B-3		
Q1031	C-7		
Q1032	C-6		

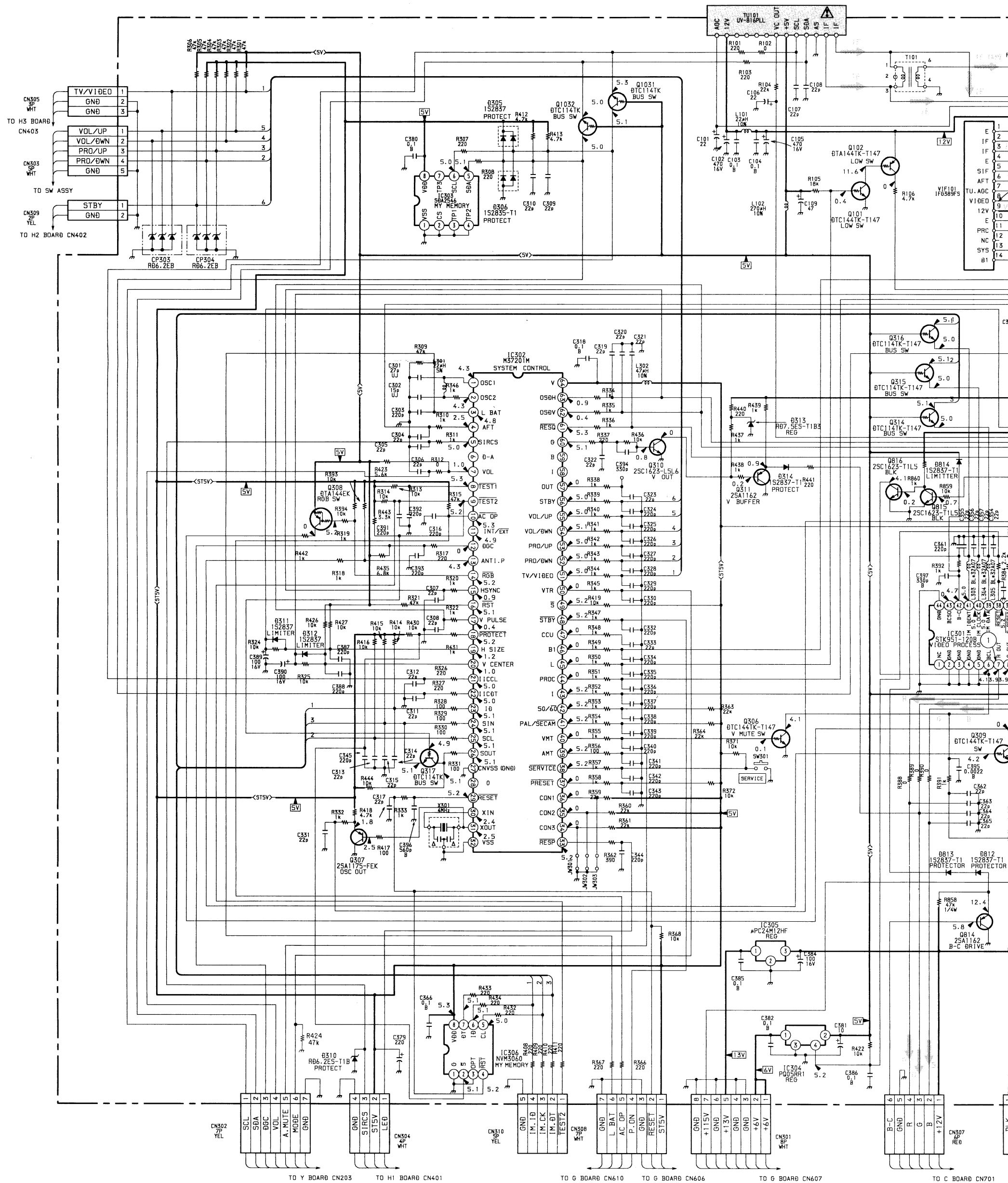


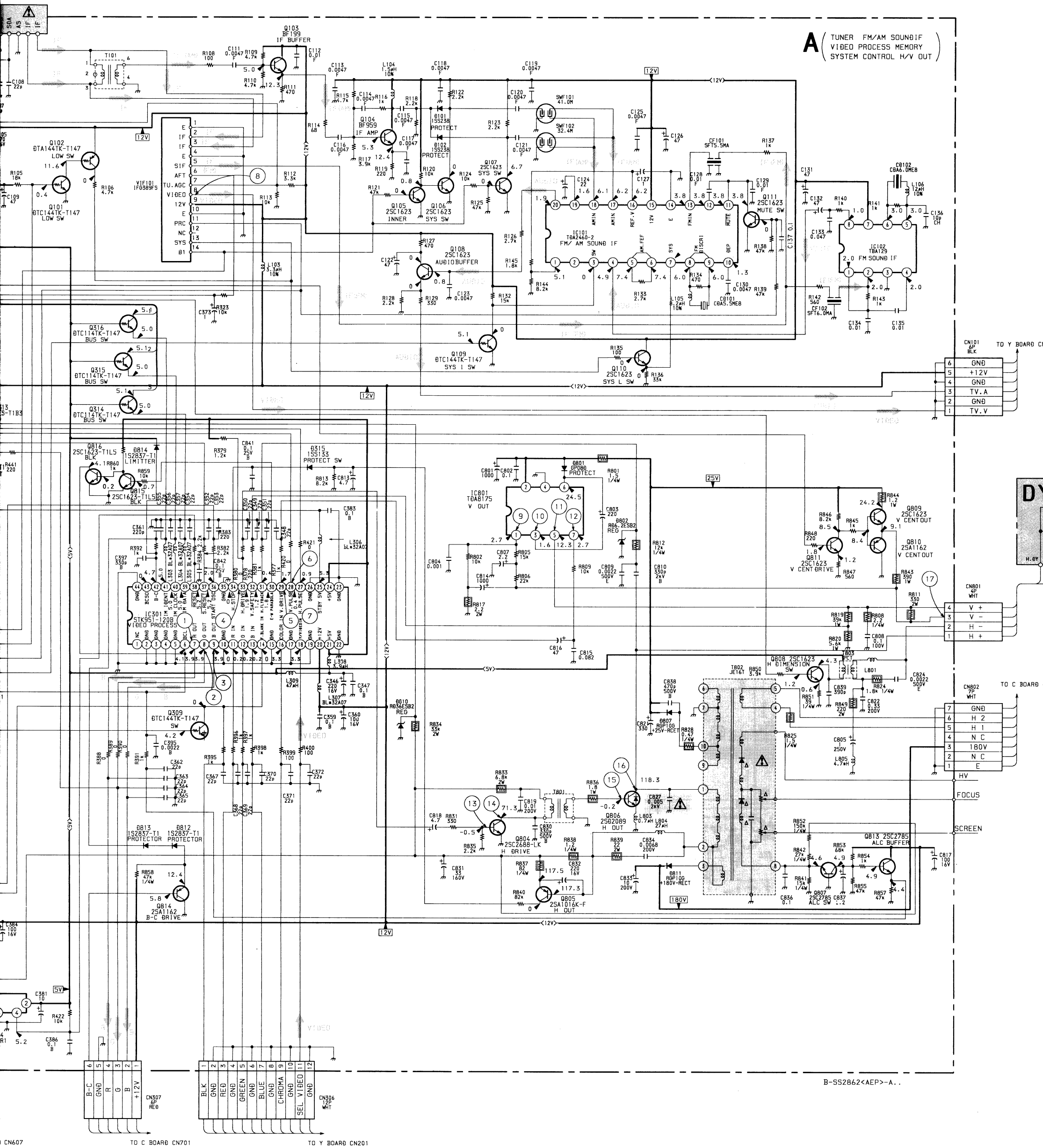
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

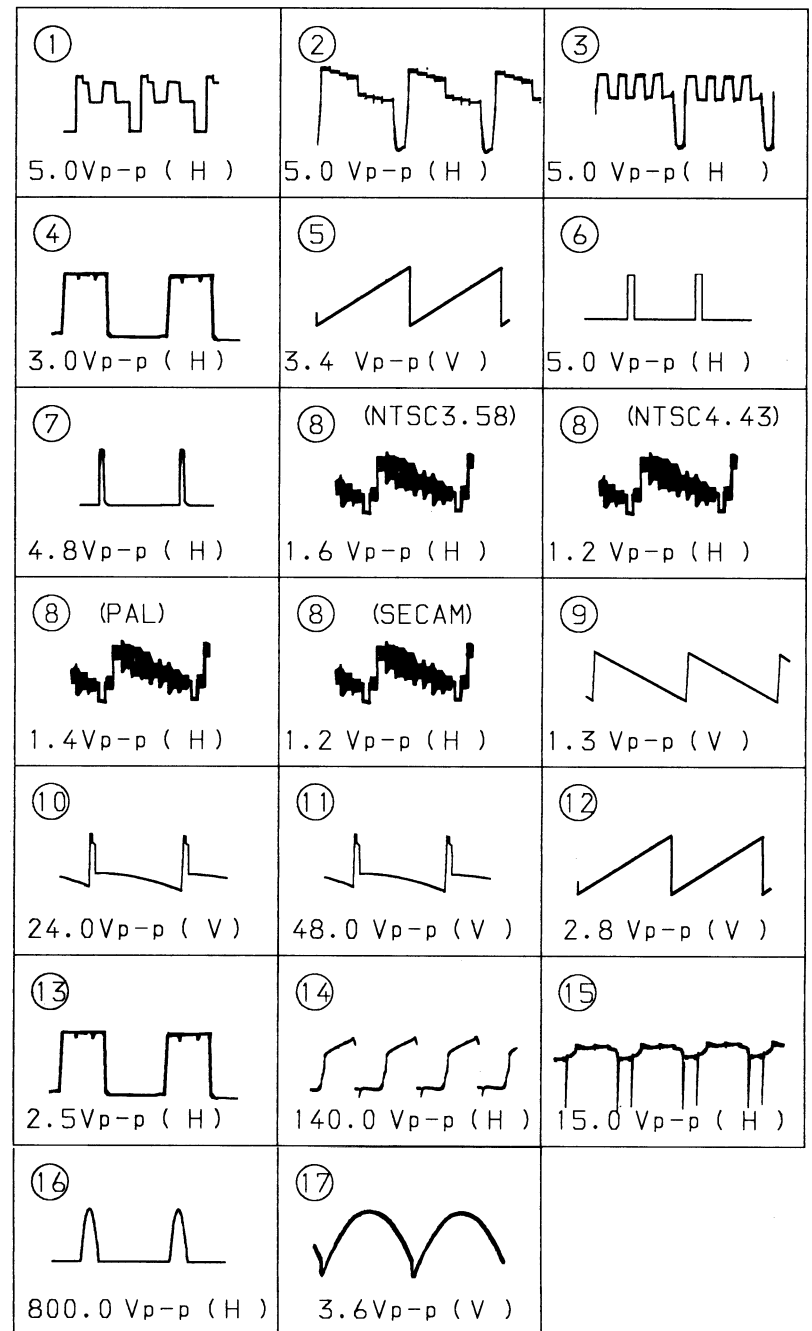
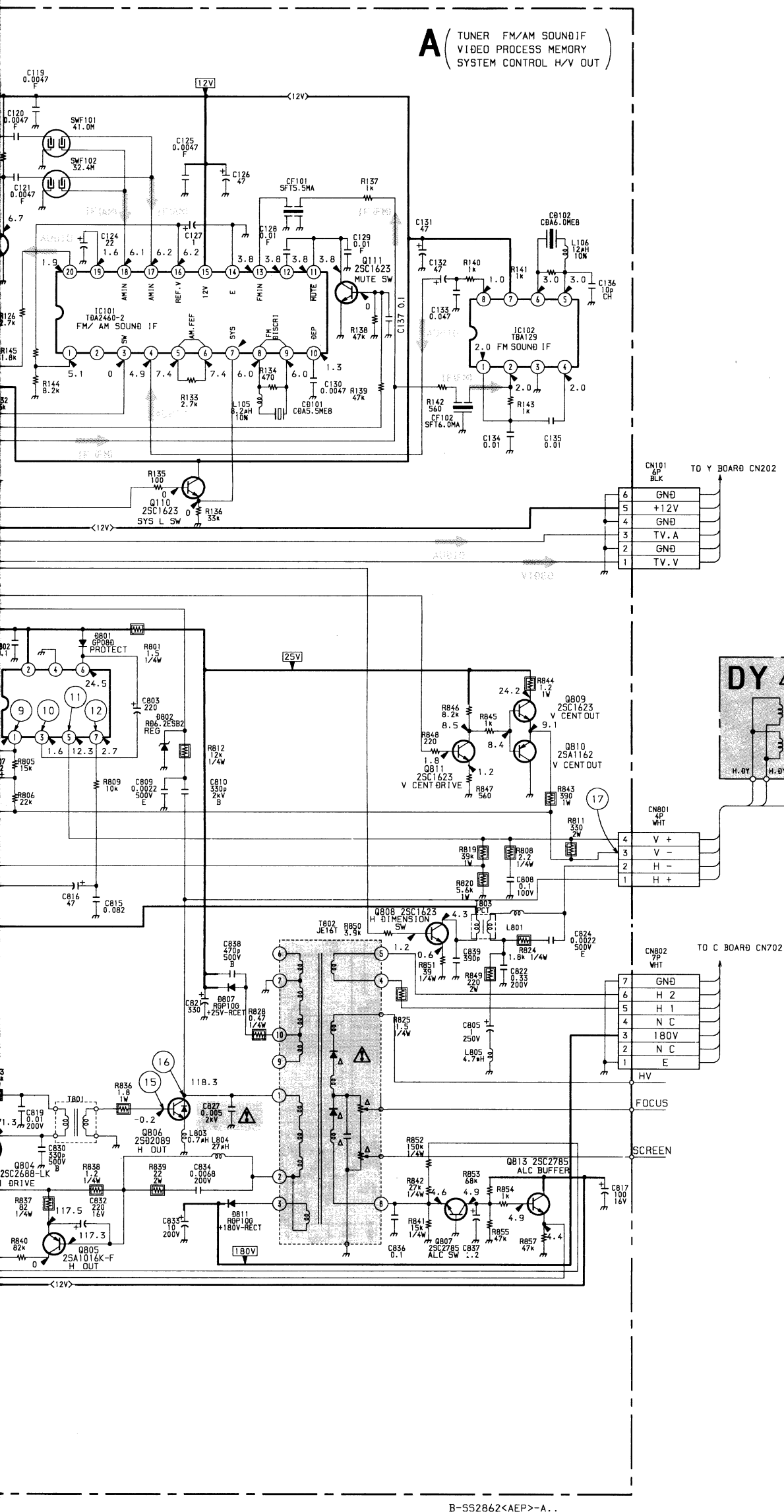
1 2 3 4 5 6 7 8 9 10 11 12

A
B
C
D
E
F
G
H
I
J
K
L
M
N

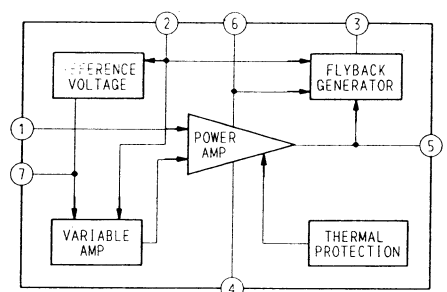




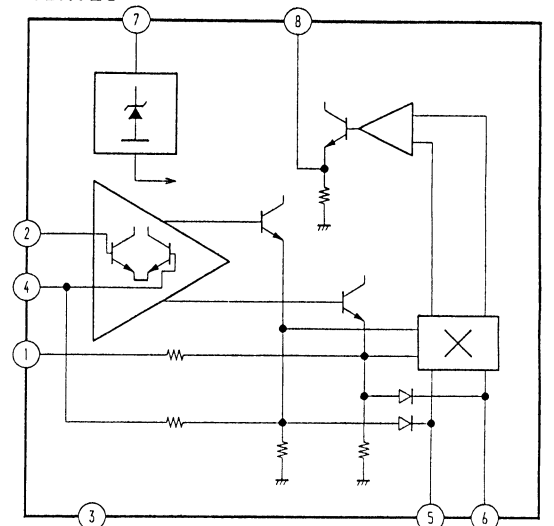
WAVEFORMS A BOARD



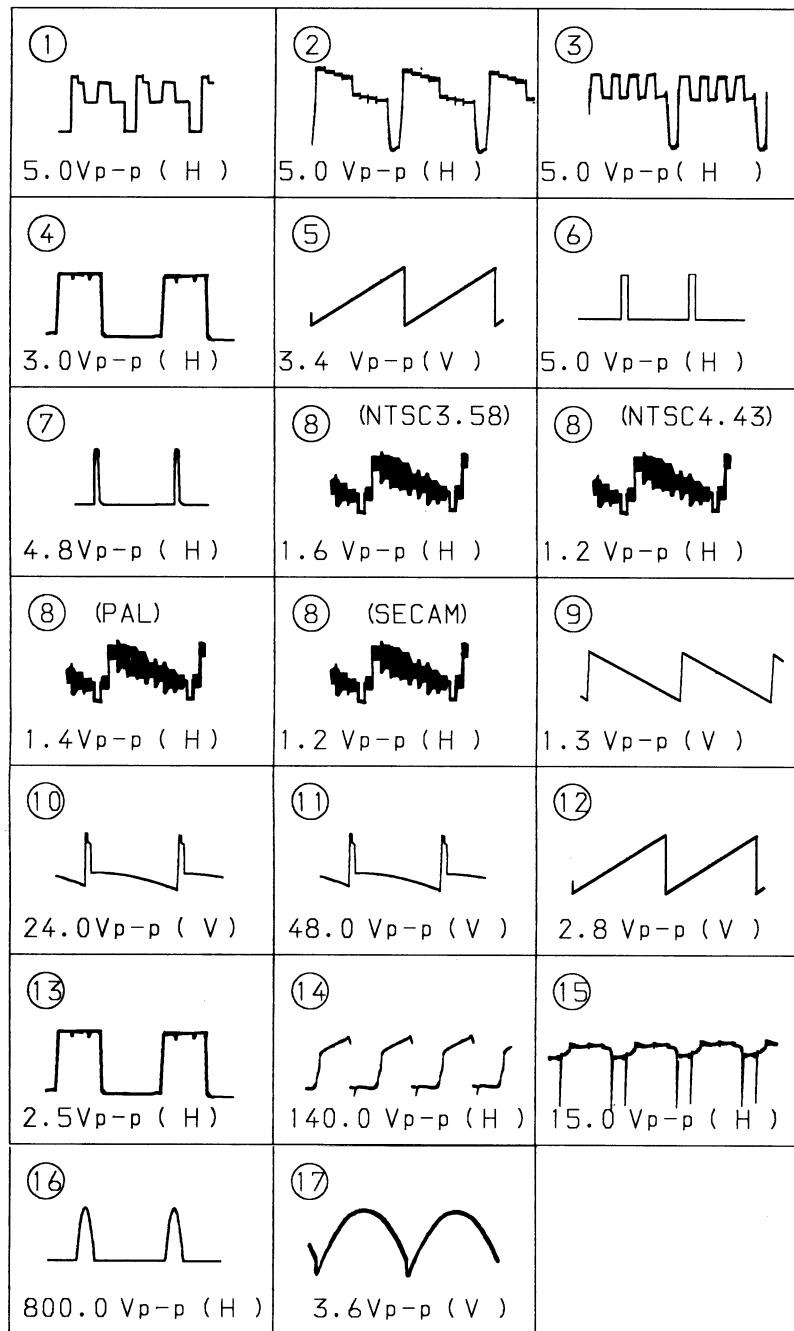
A BOARD IC801 TDA8175



A BOARD IC102 TBA129
TBA129

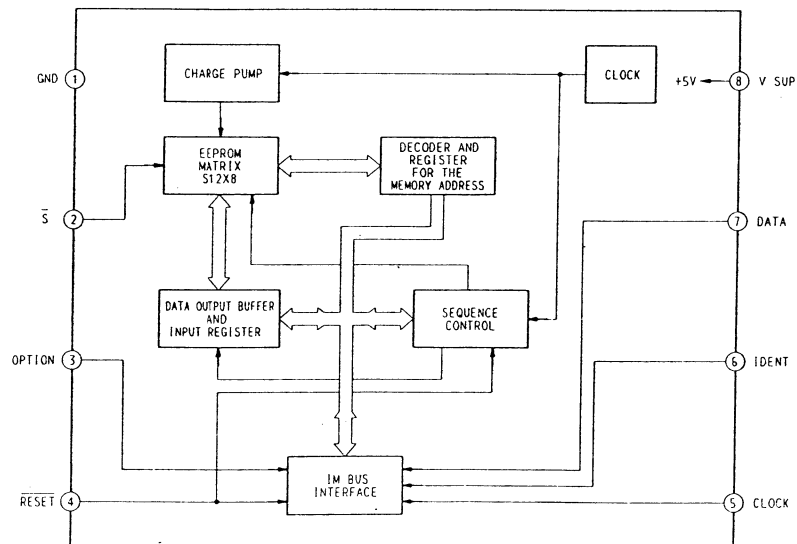


WAVEFORMS A BOARD



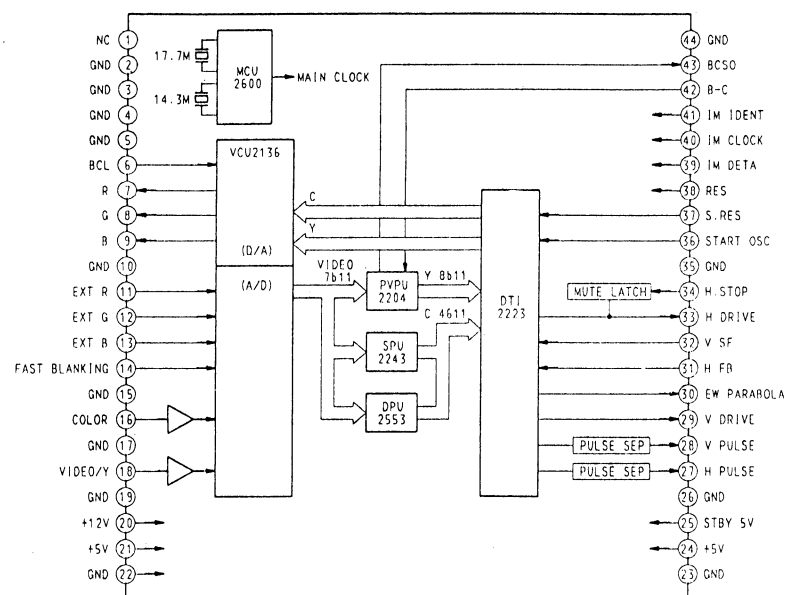
A BOARD IC306 NVM3060

A BOARD IC306



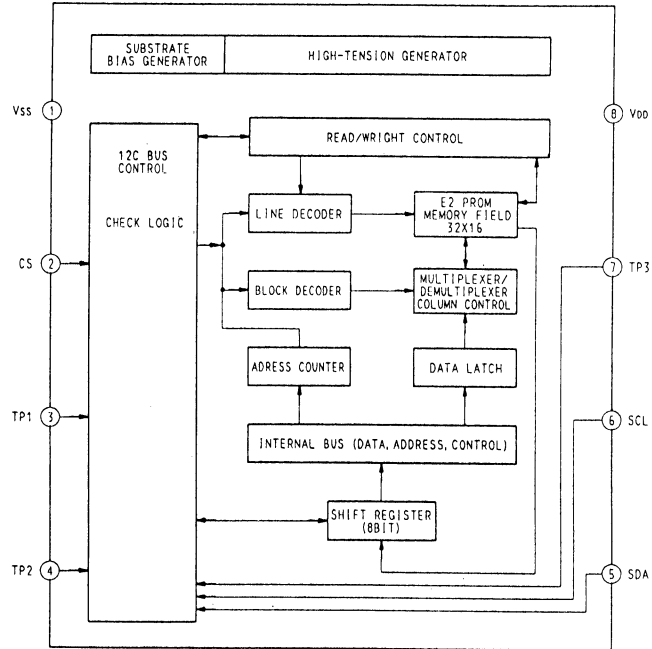
A BOARD IC301 STK951-120B

A BOARD IC301

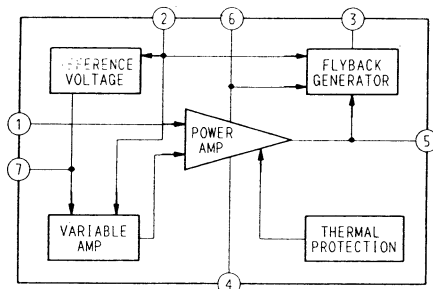


A BOARD IC303 SDA2546

A BOARD IC303

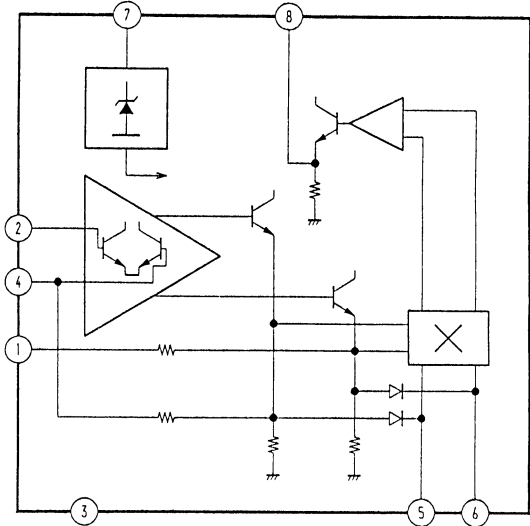


A BOARD IC801 TDA8175



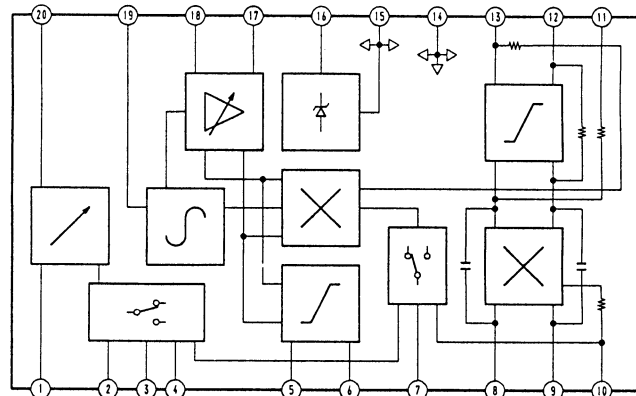
A BOARD IC102 TBA129

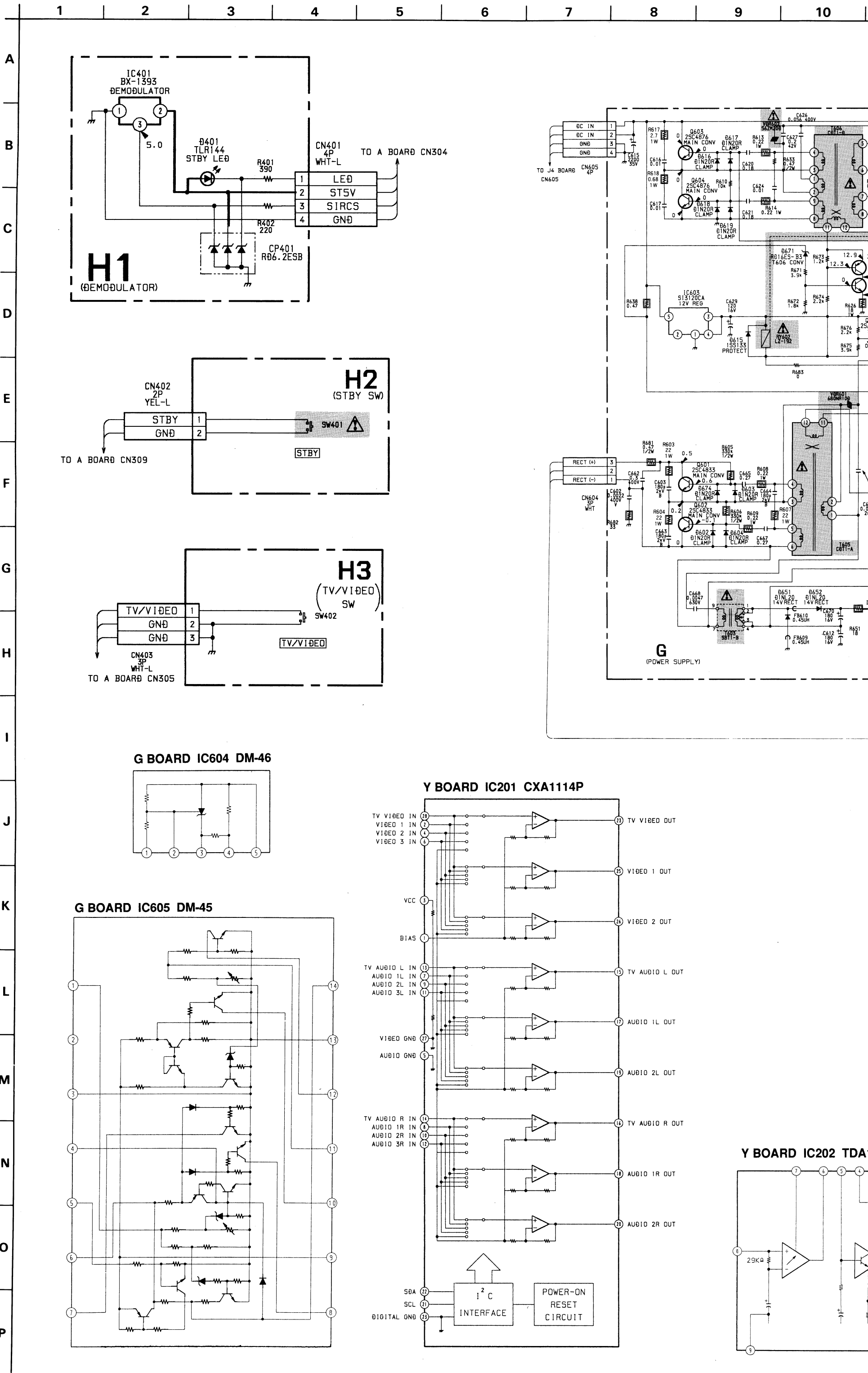
TBA129

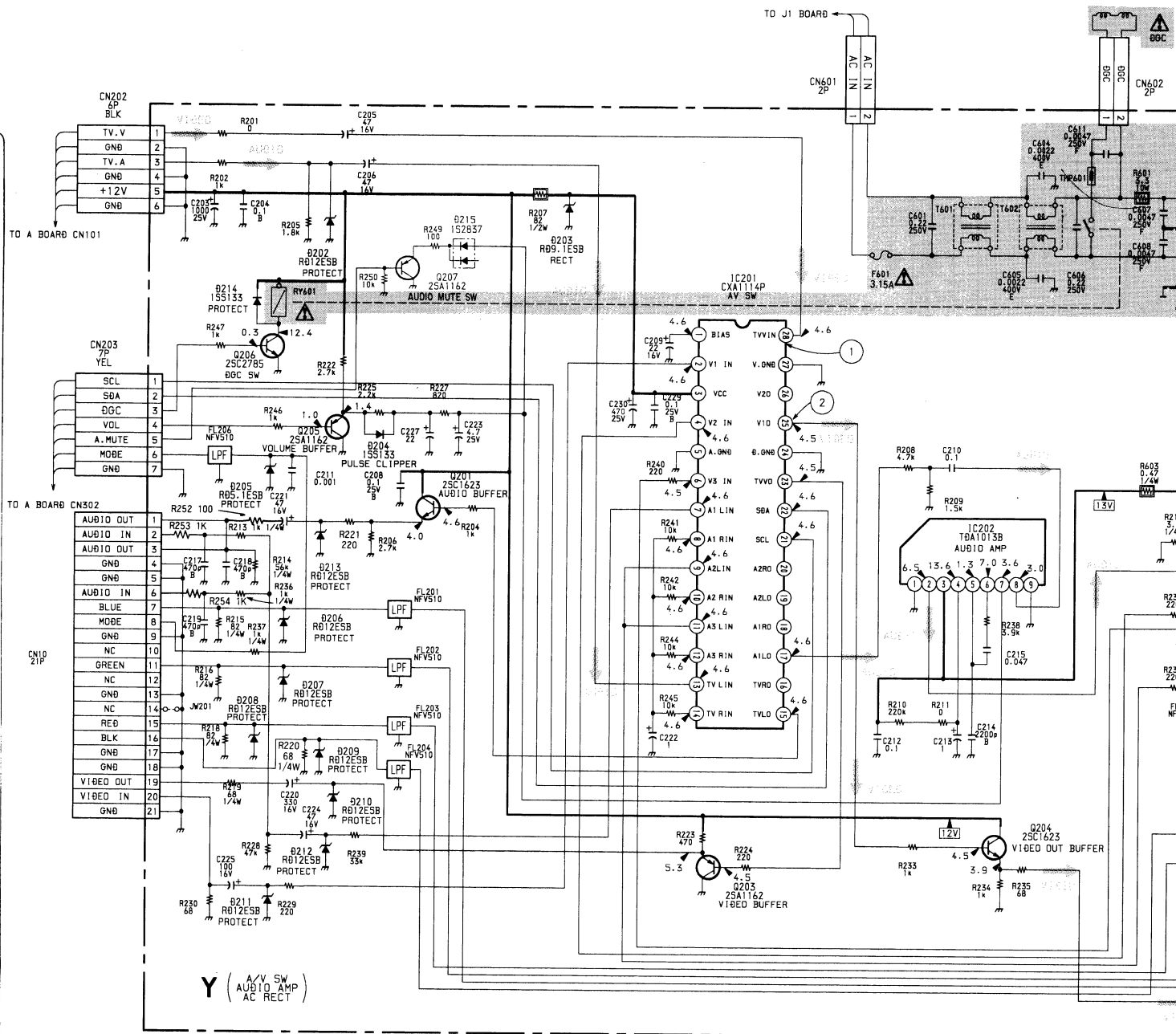
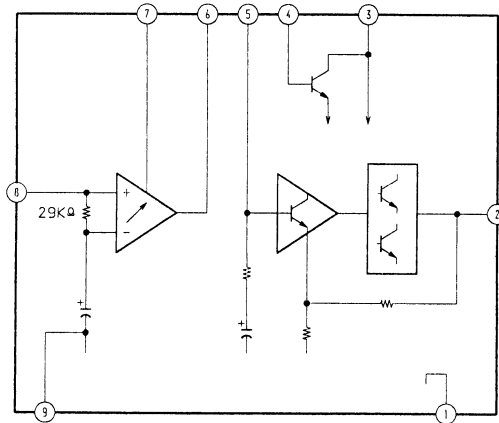
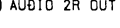
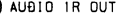
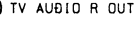
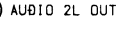
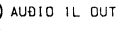
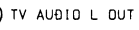
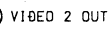
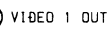
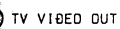
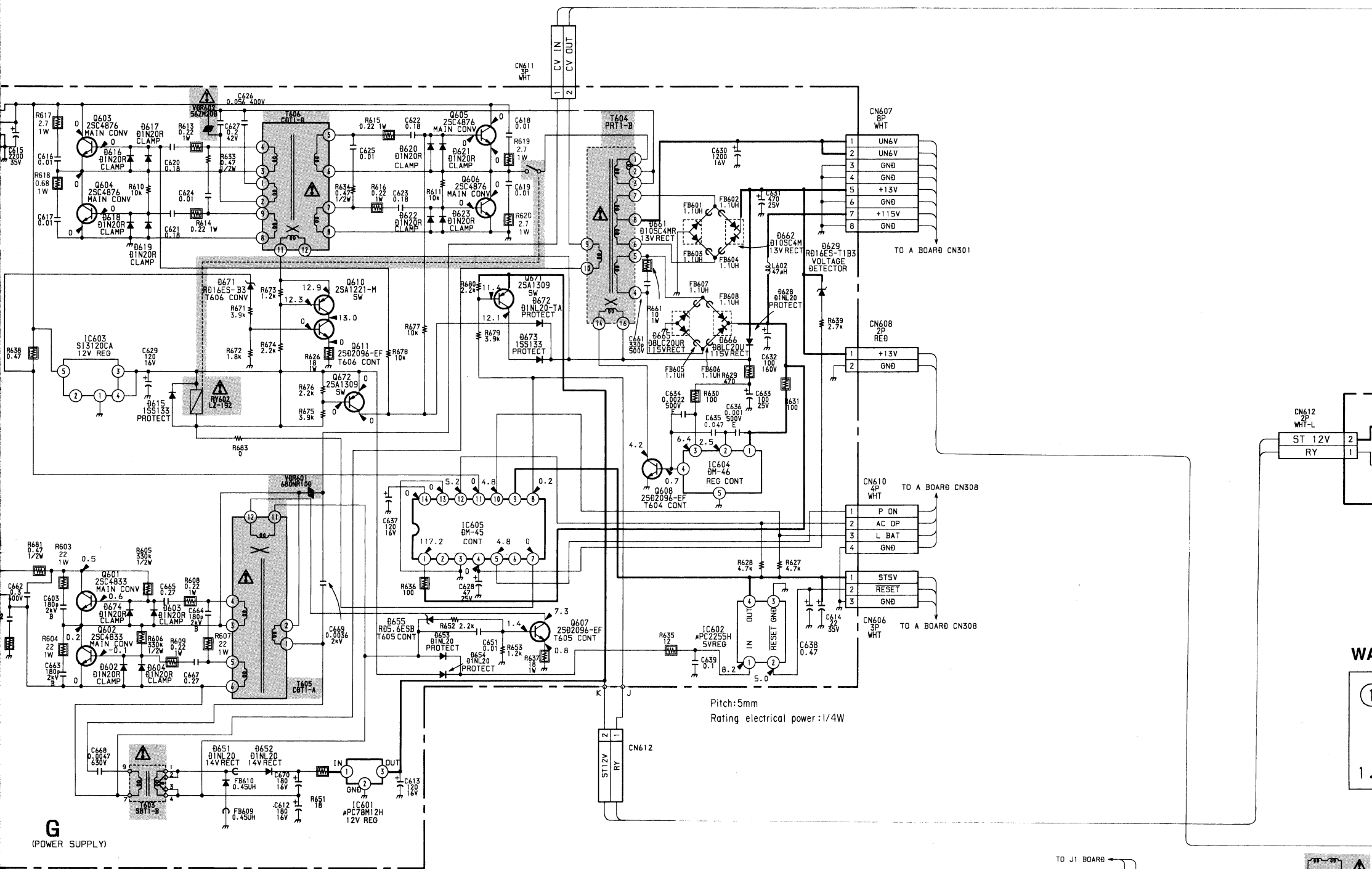


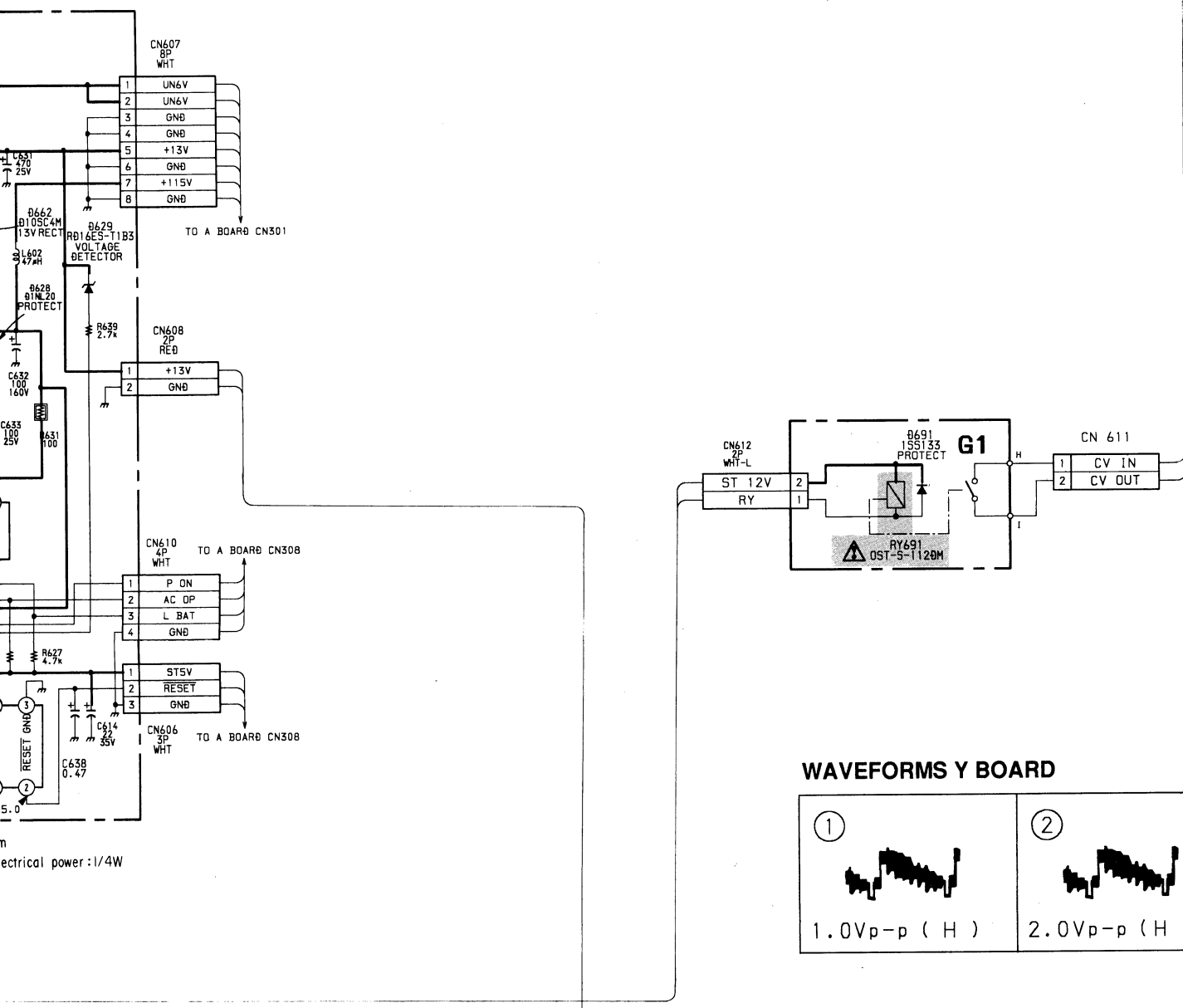
A BOARD IC101 TDA2460-2

TDA2460









WAVEFORMS Y BOARD

①

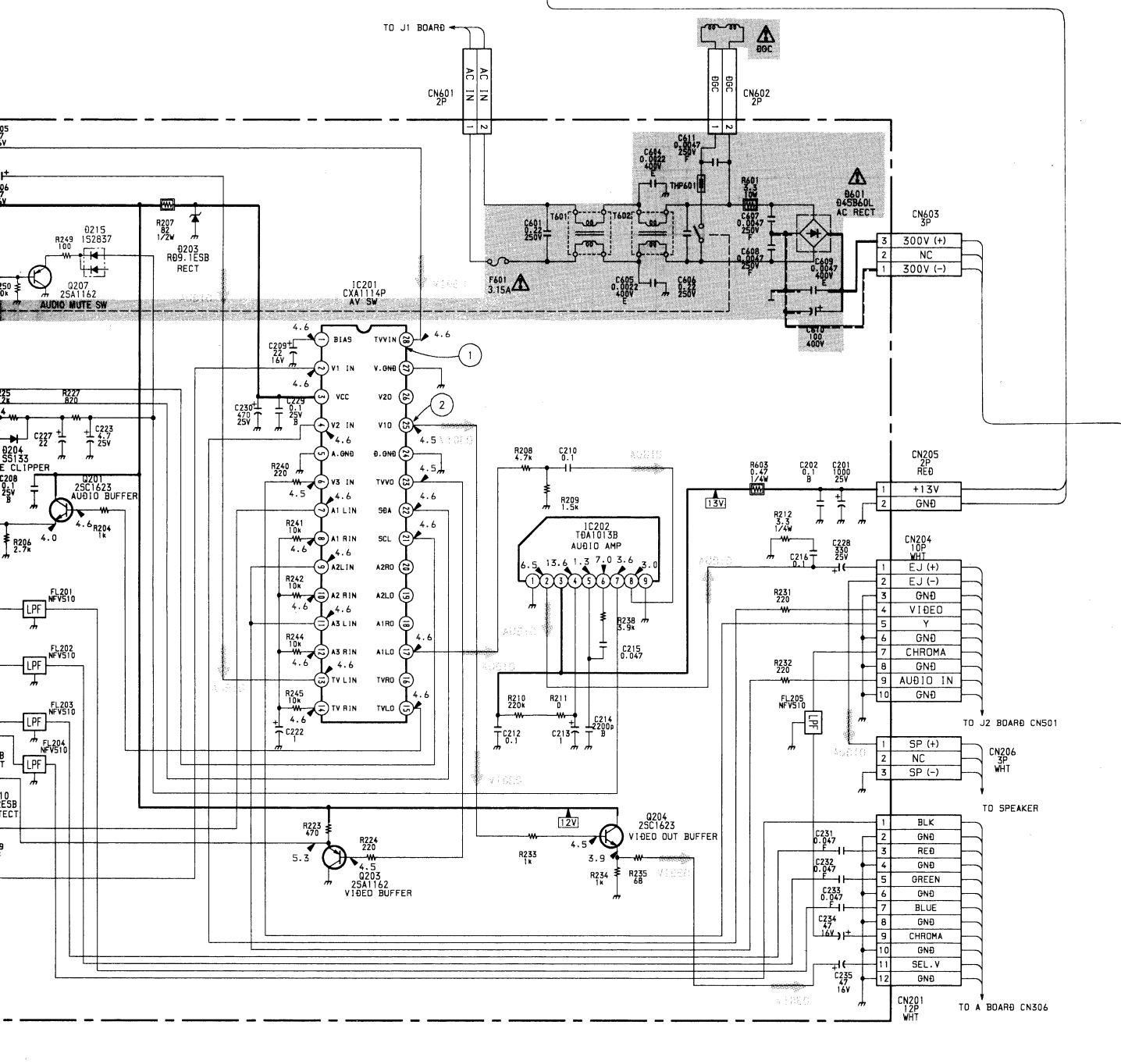


1.0Vp-p (H)

②



2.0Vp-p (H)



G1

(PROTECT)

G

(POWER SUPPLY)

YA/V SW
AUDIO AMP
AC RECT**H1**

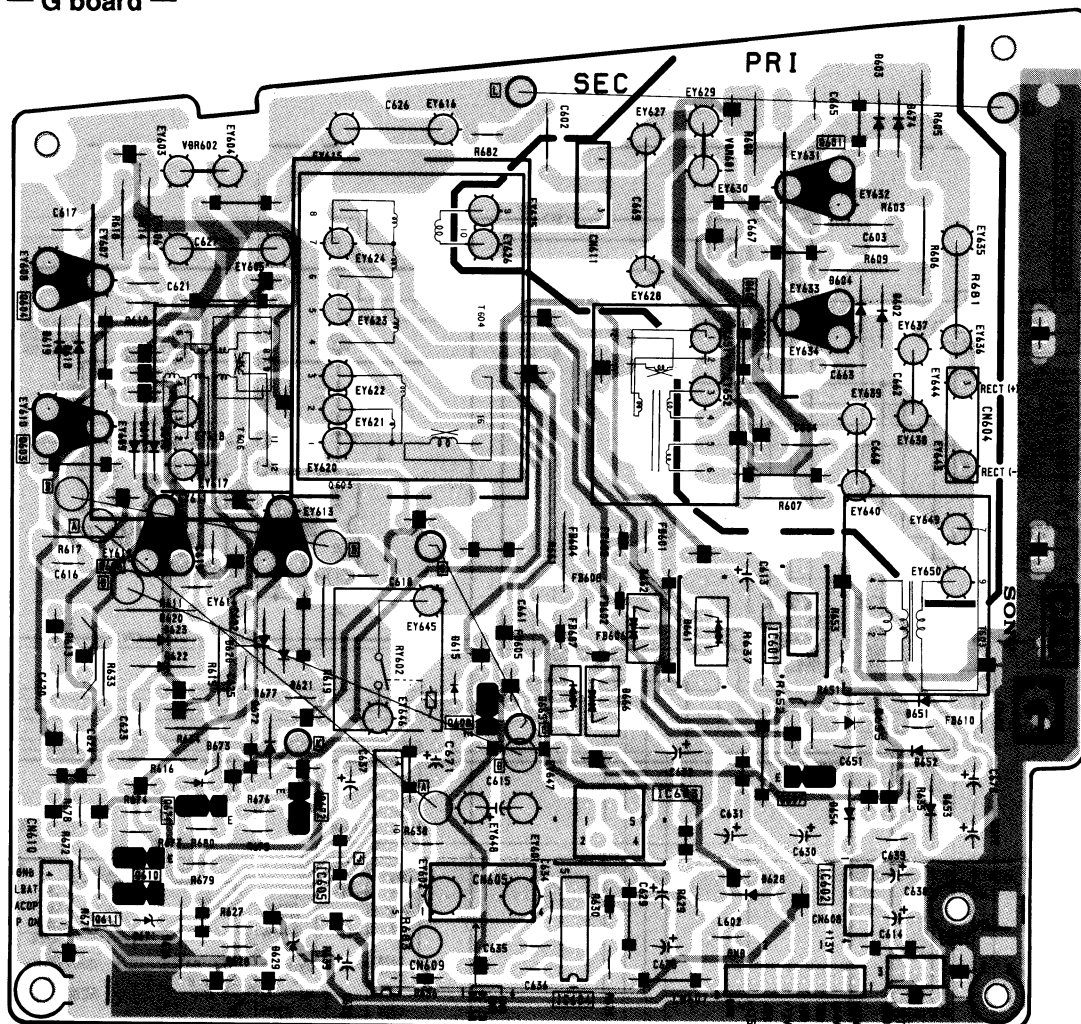
(DEMODULATOR)

H2

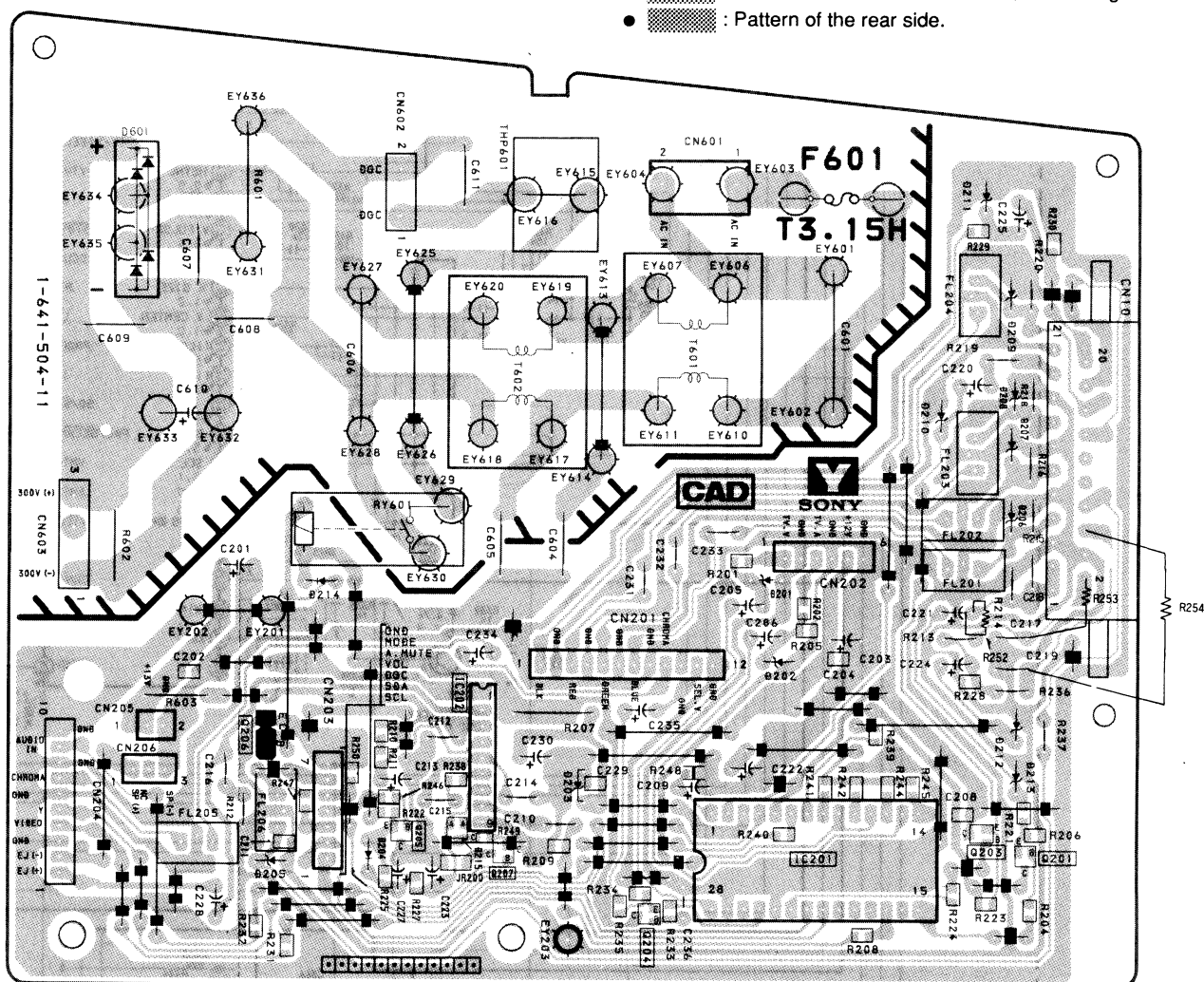
(STBY SW)

H3(TV/VIDEO
SW)

— G board —



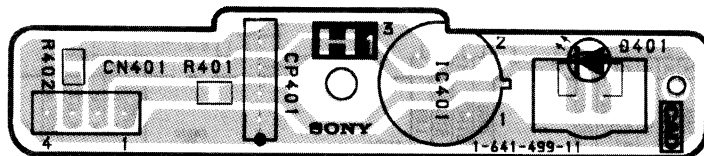
— Y board —



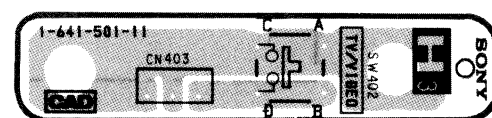
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

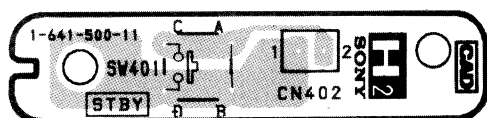
— H1 board —



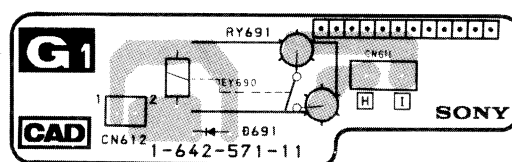
— H3 board —



— H2 board —

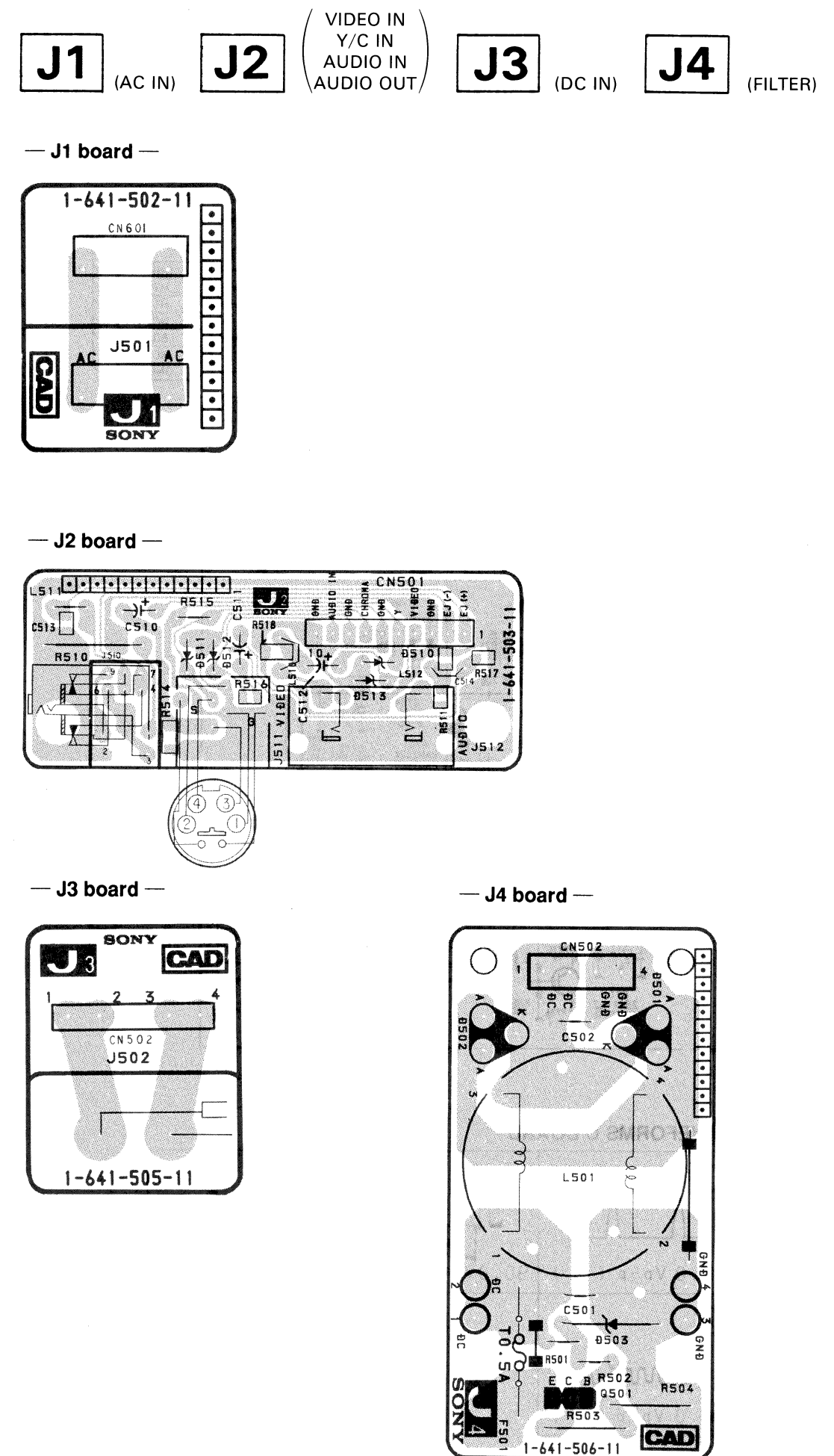
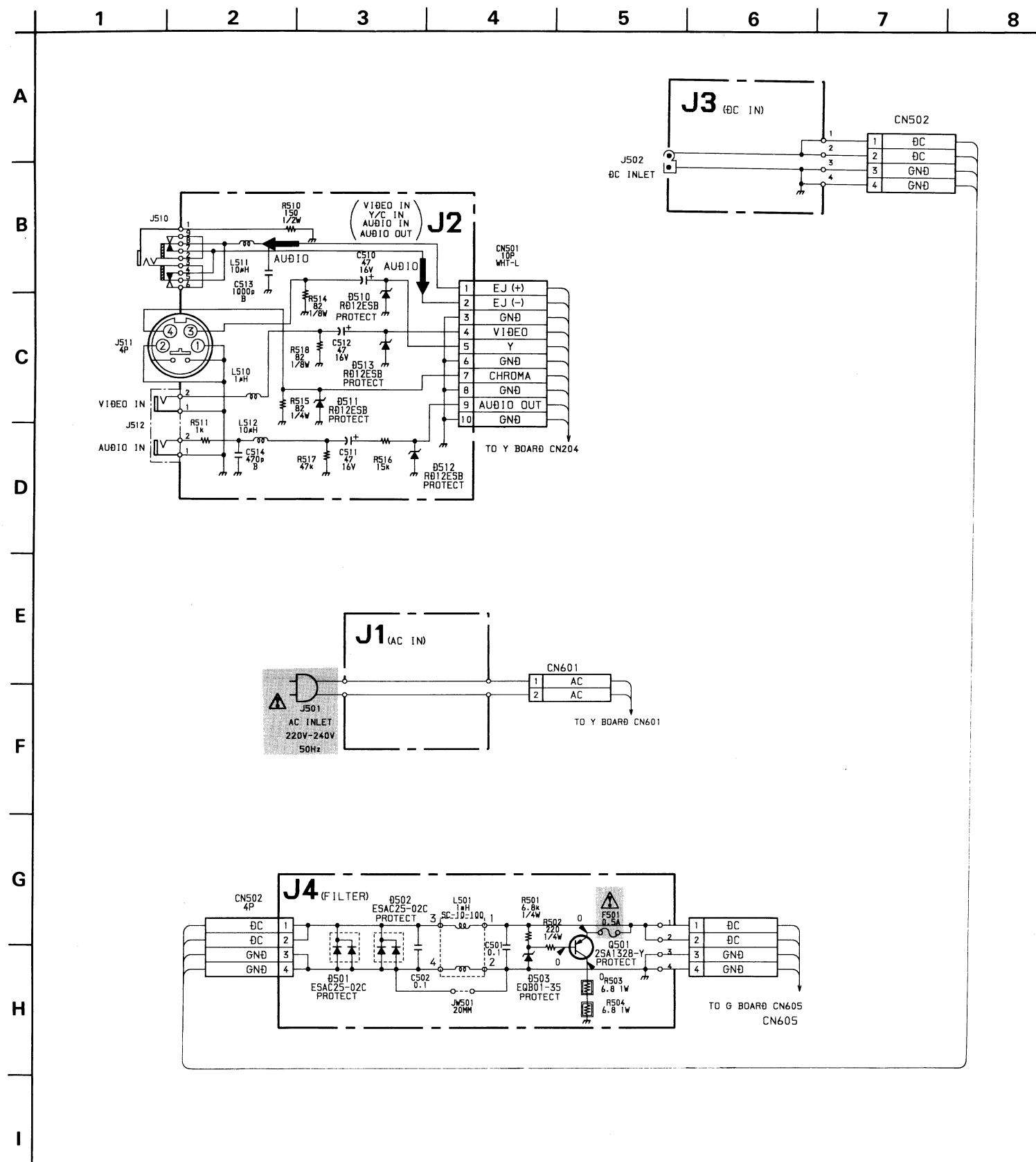


— G1 BOARD —

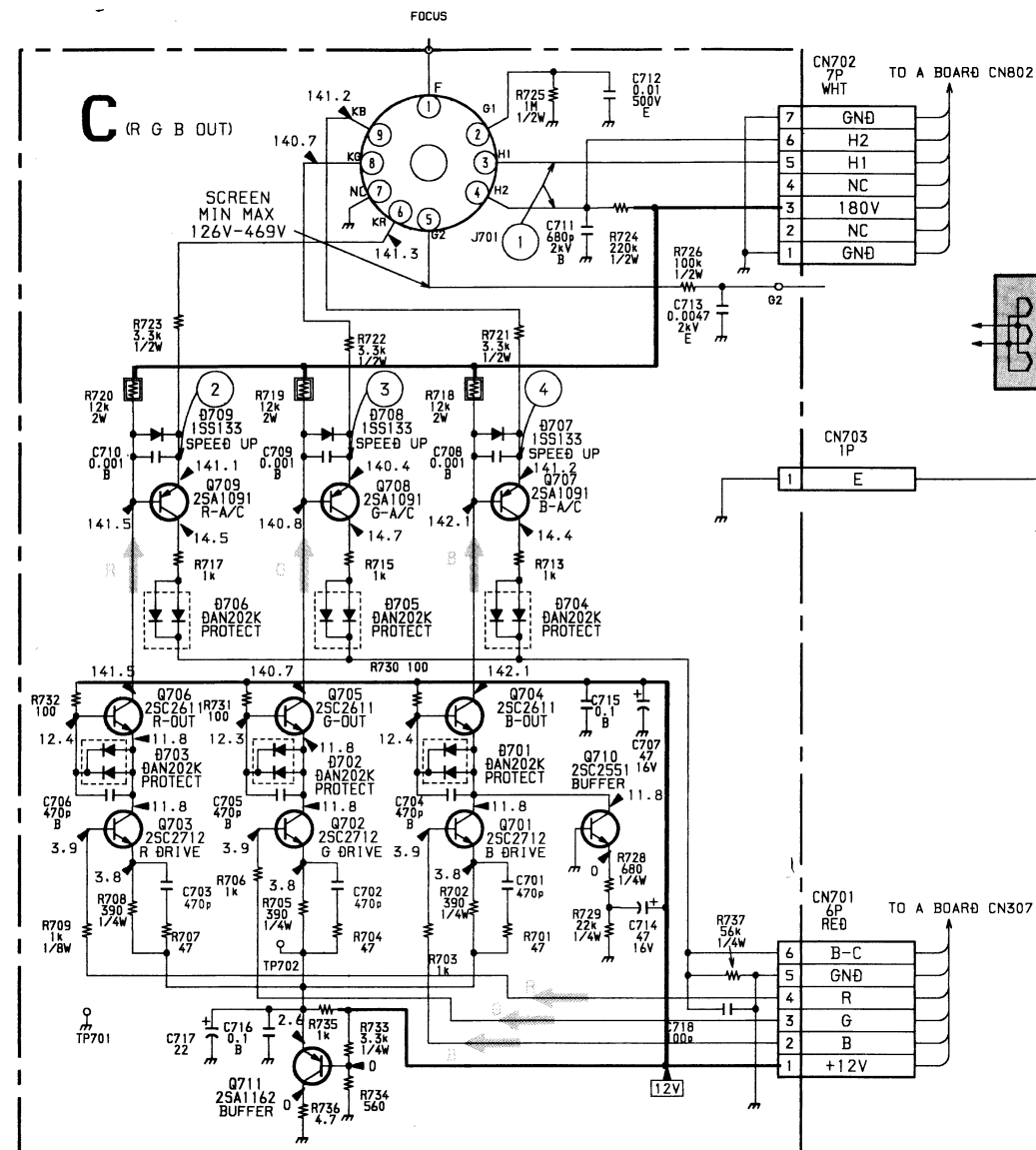


NOTE:

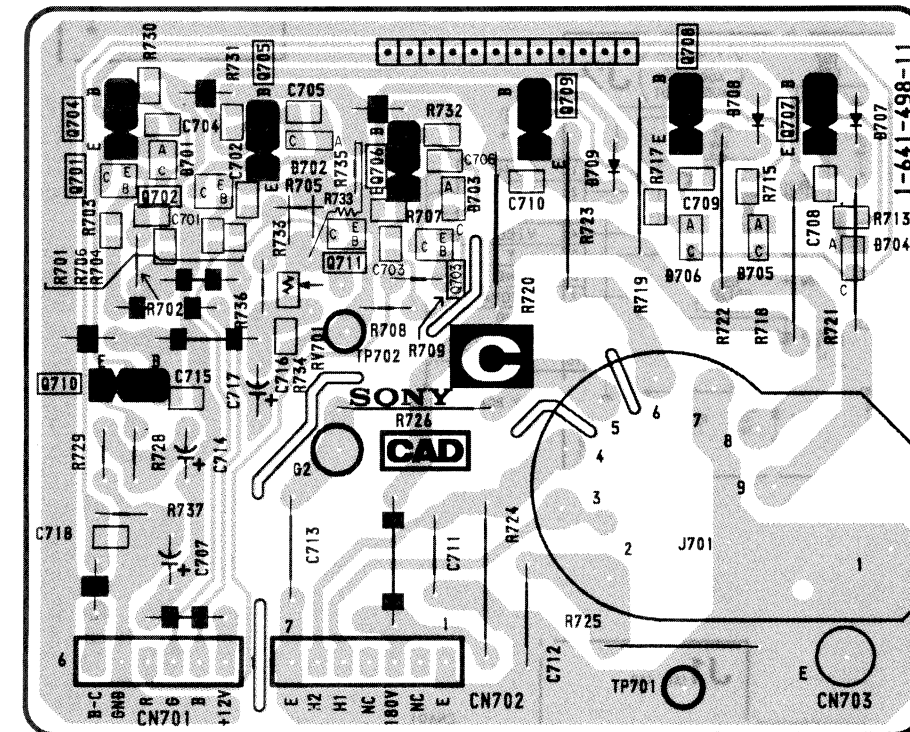
The circuit indicated as left contains 600 Vp-p. Care must be paid to prevent inspection or repairing.



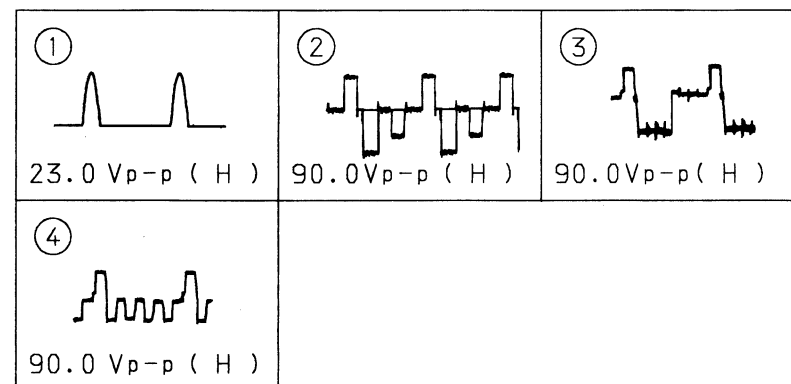
C



— C board —

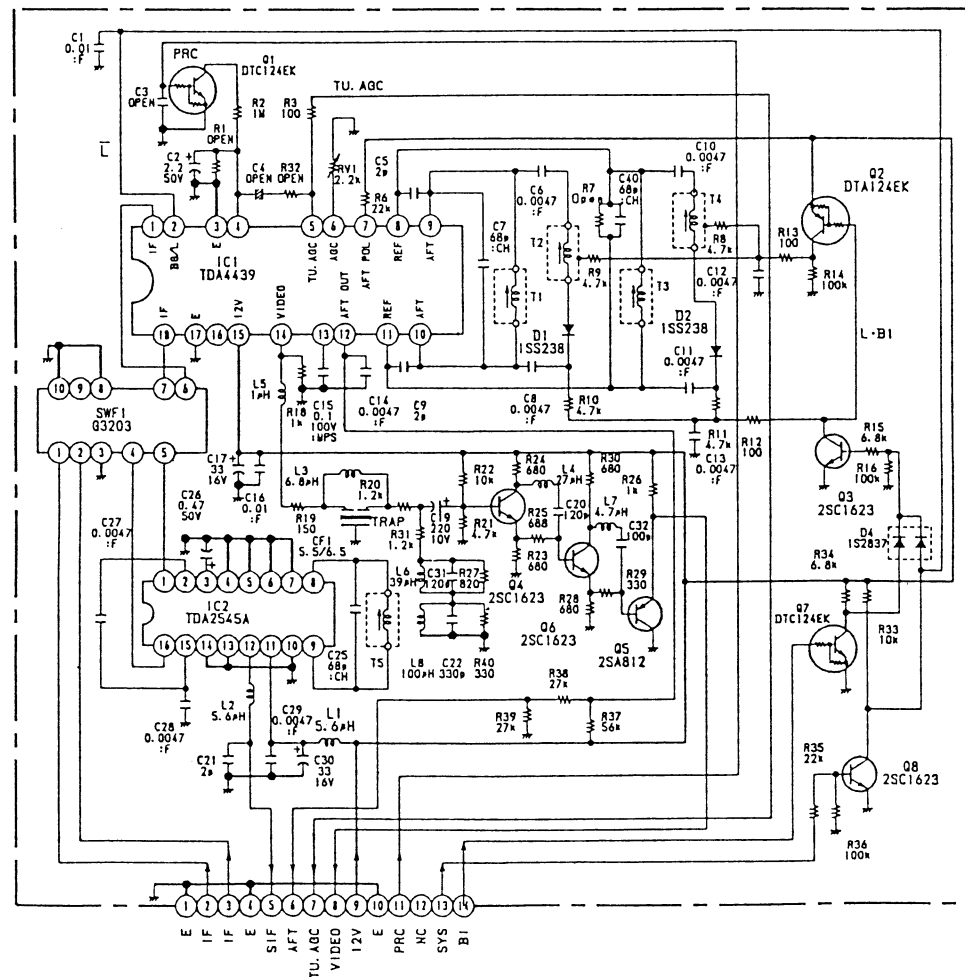


WAVEFORMS C BOARD



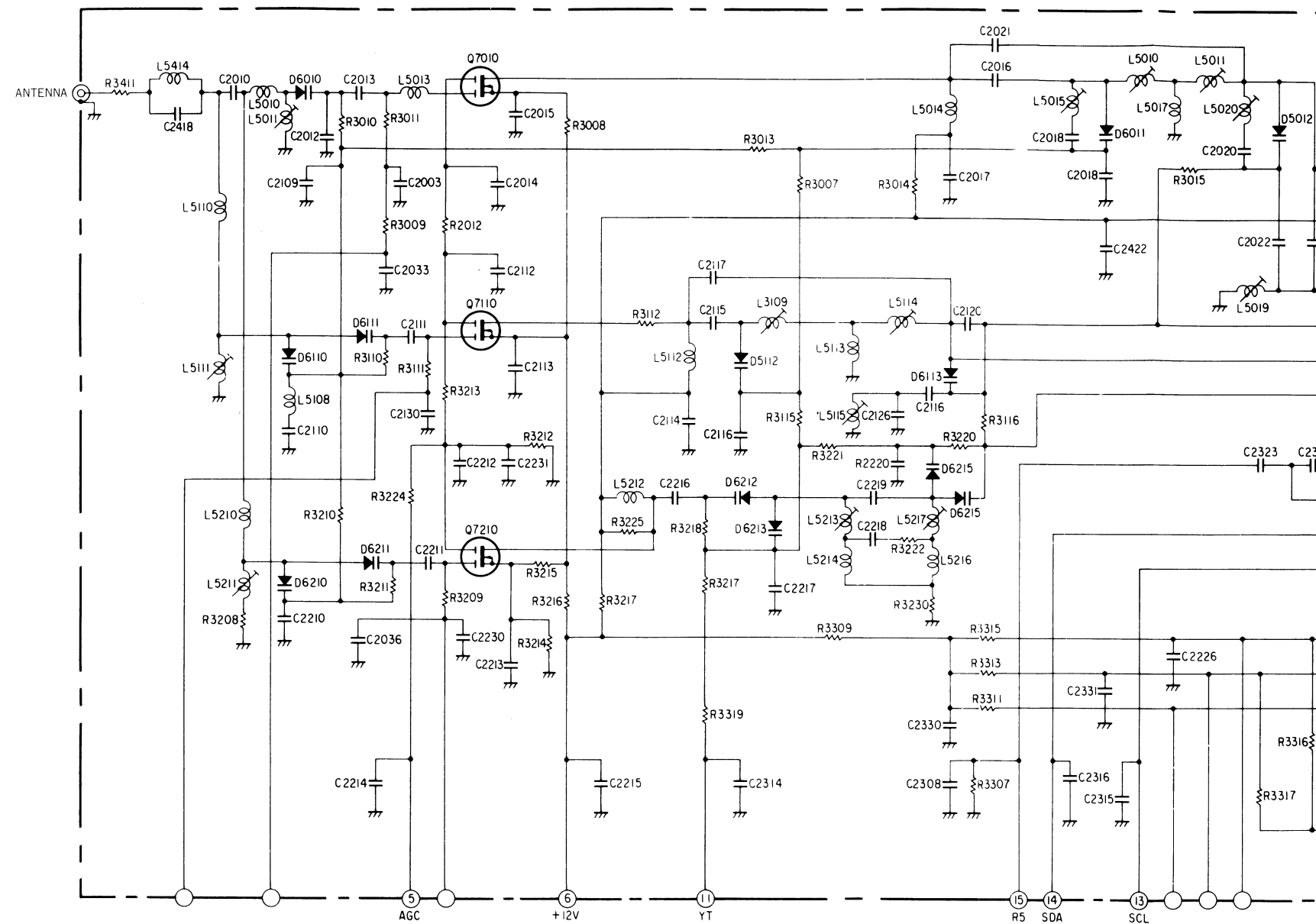
—A board—

VIF101 IFG-389FS



—A board—

TU101 UV816PLL



TU101 UV816PLL



5-4. SEMICONDUCTORS

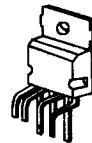
BX-1393



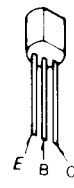
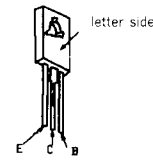
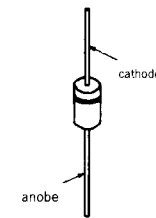
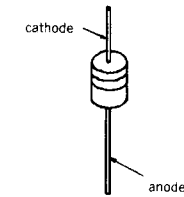
PQ05RR1



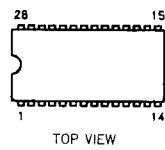
TDA8175



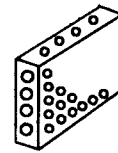
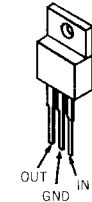
2SA1016KFG

2SC2611
2SC2688-LKD1NL20
D1N20R
D1NS4
EQB01-35
RD16ESB3
RD20ESB2
RU-3AMRD12ESB1
RD36ESB2
RD5.1ESB2
RD5.6ES-B
RD6.2ES-B2
RD7.5ESB3
1SS119
1SS168

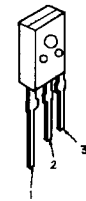
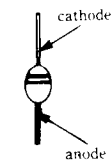
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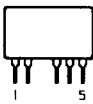
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 μ PC24M12HF2SA1091-0
2SC2551-RL2SC4833
2SC4876

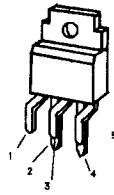
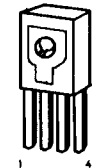
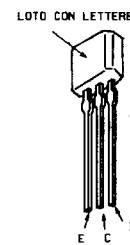
D10SC4M

RD12ESB
U05G

DM-45



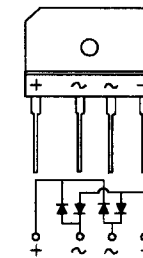
S1-3120CA

 μ PC2255H2SA1175-FEK
2SA1175-HFE
2SC2785-FEK

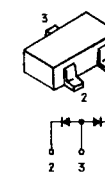
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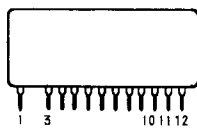
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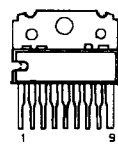
1S2836



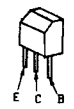
DM-46



TDA1013B

BF199
BF959

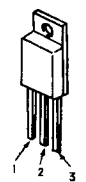
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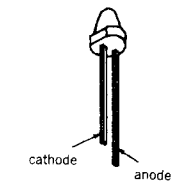
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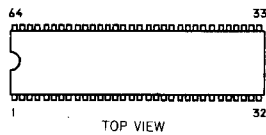
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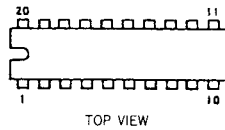
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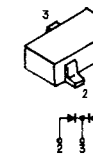
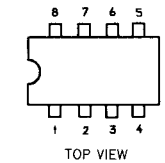
M37201M6-A13SP



TDA2460-2

DTA144EK
DTA144TK
DTC114TK
DTC144TK
2SA1162-G
2SC1623L6
2SC2712-YG

2SA1329-0

DAN202K
MA152WK
1S2837NVM3060
SDA2546
TBA129

SECTION 6

EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

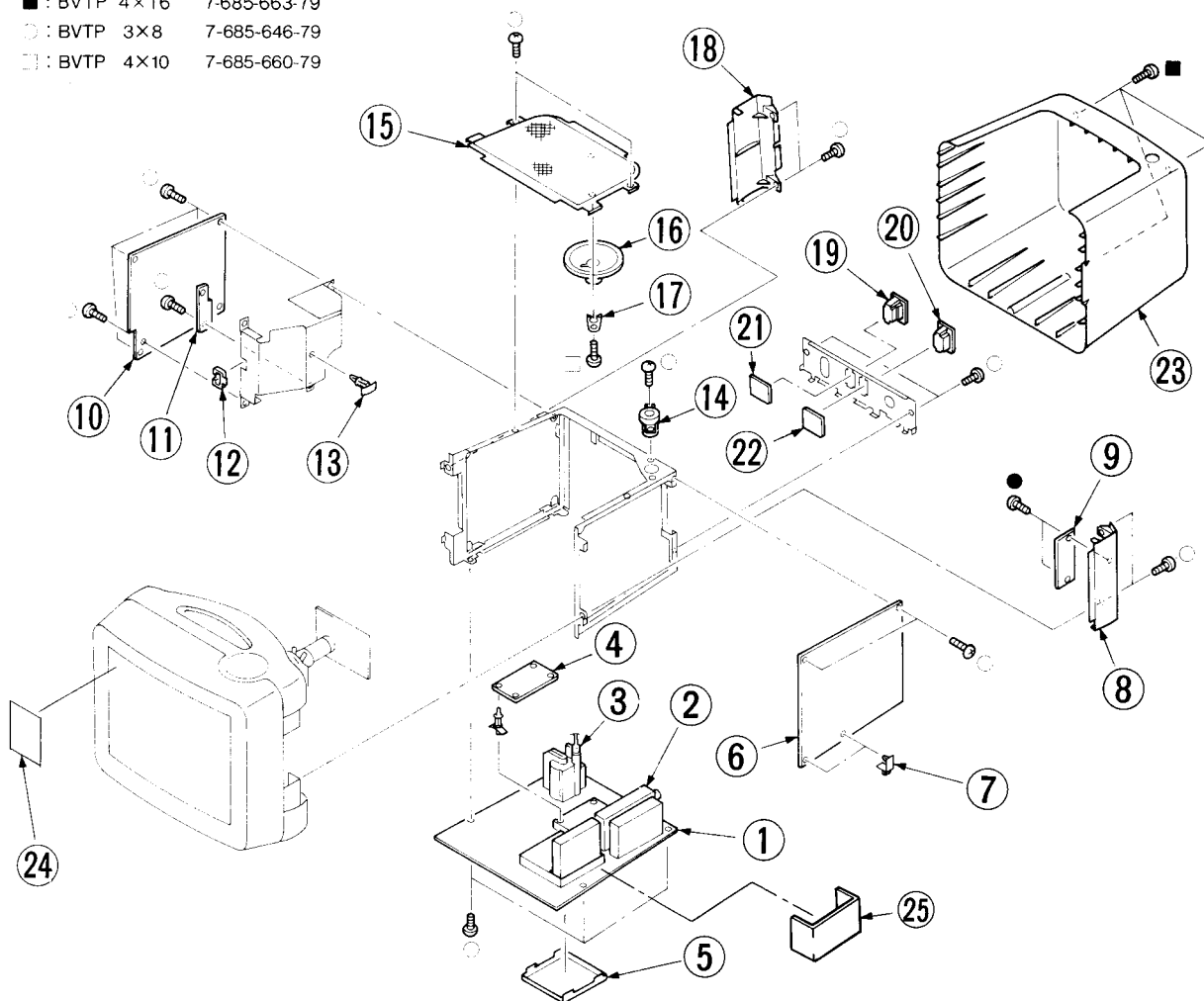
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark Δ are critical for safety.

Replace only with part number specified.

6-1. CHASSIS

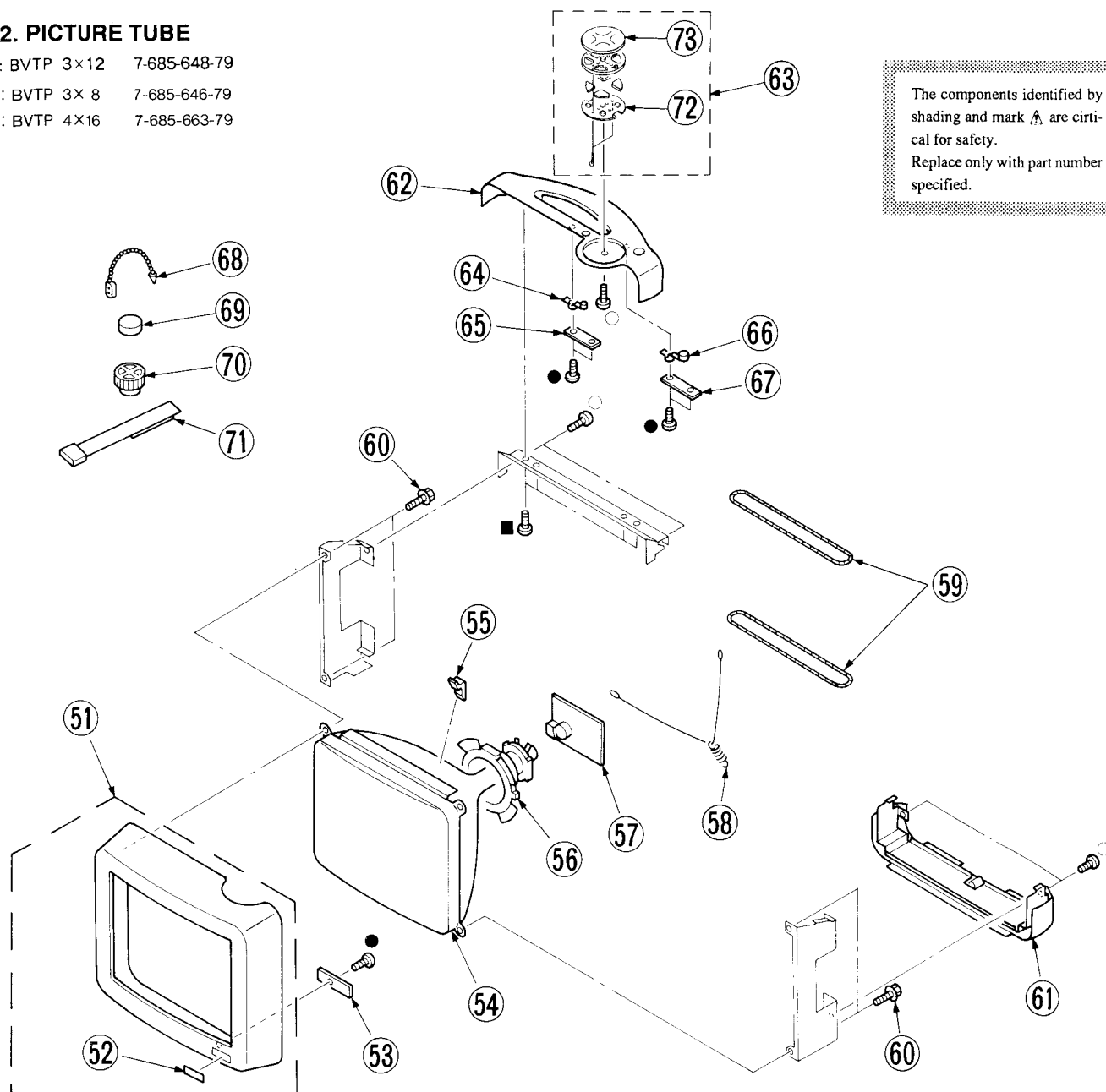
- : BVTP 3×12 7-685-648-79
- : BVTP 4×16 7-685-663-79
- : BVTP 3×8 7-685-646-79
- : BVTP 4×10 7-685-660-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*A-1296-910-A	A BOARD, COMPLETE		13	*3-704-198-11	SUPPORT, PC	
2	Δ 1-465-301-11	TUNER, ET (UV-816(PLL))		14	4-035-428-01	BRACKET, ANTENNA	
3	Δ 1-439-476-11	TRANSFORMER ASSY, FLYBACK		15	X-4030-349-1	PLATE ASSY, SP	
4	*1-641-506-12	J4 BOARD		16	1-544-187-11	SPEAKER	
5	*4-394-974-01	CASE (BOTTOM LID), SHIELD		17	*4-338-106-00	HOLDER, SPEAKER	
6	*A-1394-338-A	Y BOARD, COMPLETE		18	4-035-440-01	PLATE (LEFT), SIDE	
7	*3-701-832-00	HINGE, CIRCUIT BOARD		19	1-561-530-00	CONNECTOR (DC POWER)	
8	4-035-436-01	PLATE (RIGHT), SIDE		20	Δ 1-540-054-11	INLET, AC	
9	*1-641-503-11	J2 BOARD		21	*1-641-505-11	J3 BOARD	
10	*A-1316-122-A	G BOARD, COMPLETE	11	22	*1-641-502-11	J1 BOARD	
11	*1-642-571-11	G1 BOARD		23	X-4030-223-1	COVER ASSY, REAR	
12	*3-646-071-00	HOLDER, WIRE		24	3-703-706-01	STICKER, SONY SYMBOL (25)	
				25	4-036-059-01	SHEET, COPPER	

6-2. PICTURE TUBE

- : BVTP 3×12 7-685-648-79
 ○ : BVTP 3×8 7-685-646-79
 ■ : BVTP 4×16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4030-222-1	CABINET ASSY (WITH BEZEL ASSY)	52	62	X-4030-225-1	PLATE ASSY, TOP	
52	4-035-423-01	WINDOW, ORNAMENTAL		63	1-466-678-11	SWITCH BLOCK	72,73
53	*1-641-499-11	H1 BOARD		64	4-035-432-01	BUTTON (A), MULTI	
54	A-8-735-821-05	PICTURE TUBE (A27KGC10X)		65	*1-641-501-11	H3 BOARD	
55	3-704-495-01	SPACER, DY		66	4-035-429-01	BUTTON (B), MULTI	
56	A-1-451-354-11	DEFLECTION YOKE (Y11SLA)		67	*1-641-500-11	H2 BOARD	
57	*A-1331-179-A	C BOARD, COMPLETE		68	4-308-870-00	CLIP, LEAD WIRE	
58	4-303-774-99	SPRING		69	1-452-512-11	MAGNET	
59	A-1-426-590-11	COIL, DEMAGNETIZATION		70	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
60	4-365-808-01	SCREW (5), TAPPING		71	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
61	X-4030-224-1	PLATE ASSY, BOTTOM		72	*9-902-396-01	PW BOARD	
				73	9-902-397-01	SHEET, RUBBER	

A

SECTION 7
ELECTRICAL PARTS LIST

NOTE :

The components identified by shading and mark **A** are critical for safety.

Replace only with part number specified.

Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

MF: μ F, PF: μ F · MMH:mH, UH: μ H

RESISTORS

All resistors are in ohms
F : nonflammable

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
*A-1296-910-A	A BOARD, COMPLETE	*****		C309	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
*4-341-751-01	EYELET			C310	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
*4-341-752-01	EYELET			C311	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
<CAPACITOR>				C312	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C101	1-126-233-11	ELECT 22MF	20% 50V	C313	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C102	1-126-103-11	ELECT 470MF	20% 16V	C314	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C103	1-136-165-00	FILM 0.1MF	5% 50V	C315	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C104	1-136-165-00	FILM 0.1MF	5% 50V	C316	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C105	1-126-103-11	ELECT 470MF	20% 16V	C317	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C106	1-126-233-11	ELECT 22MF	20% 50V	C318	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C107	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C319	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C108	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C320	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C109	1-124-910-11	ELECT 47MF	20% 50V	C321	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C111	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C322	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C112	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C323	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C113	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C324	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C114	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C325	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C115	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C326	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C116	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C327	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C117	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C328	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C118	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C329	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C119	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C330	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C120	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C331	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C121	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C332	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C122	1-124-910-11	ELECT 47MF	20% 50V	C333	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C123	1-130-479-00	MYLAR 0.0047MF	5% 50V	C334	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C124	1-126-233-11	ELECT 22MF	20% 50V	C335	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C125	1-163-029-11	CERAMIC CHIP 0.0047MF	50V	C336	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C126	1-124-910-11	ELECT 47MF	20% 50V	C337	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C127	1-124-903-11	ELECT 1MF	20% 50V	C338	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C128	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C339	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C129	1-163-031-11	CERAMIC CHIP 0.01MF	50V	C340	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C130	1-130-479-00	MYLAR 0.0047MF	5% 50V	C341	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C131	1-124-910-11	ELECT 47MF	20% 50V	C342	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C132	1-124-910-11	ELECT 47MF	20% 50V	C343	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C133	1-136-161-00	FILM 0.047MF	5% 50V	C344	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C134	1-136-153-00	FILM 0.01MF	5% 50V	C345	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C135	1-136-153-00	FILM 0.01MF	5% 50V	C346	1-124-120-11	ELECT 220MF	20% 16V
C136	1-163-227-11	CERAMIC CHIP 10PF	5% 50V	C347	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C137	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C348	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C301	1-163-103-00	CERAMIC CHIP 27PF	5% 50V	C349	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C302	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C350	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C303	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	C351	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C304	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C352	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C305	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C353	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C306	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C354	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C307	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C355	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C308	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C356	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
				C357	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
				C359	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
				C360	1-126-101-11	ELECT 100MF	20% 16V

Replace only with part number specified.

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A

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
IC801	8-759-047-73	IC TDA8175				<RESISTOR>	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC801		JR1	1-216-296-00	METAL GLAZE	0 5% 1/8W
		<COIL>		JR2	1-216-295-00	METAL GLAZE	0 5% 1/10W
L101	1-408-413-00	INDUCTOR 22UH		JR3	1-216-295-00	METAL GLAZE	0 5% 1/10W
L102	1-408-426-00	INDUCTOR 270UH		JR4	1-216-296-00	METAL GLAZE	0 5% 1/8W
L103	1-408-403-00	INDUCTOR 3.3UH		JR5	1-216-295-00	METAL GLAZE	0 5% 1/10W
L104	1-408-399-00	INDUCTOR 1.5UH		JR6	1-216-296-00	METAL GLAZE	0 5% 1/8W
L105	1-408-408-00	INDUCTOR 8.2UH		JR7	1-216-295-00	METAL GLAZE	0 5% 1/10W
L106	1-408-410-00	INDUCTOR 12UH		JR11	1-216-296-00	METAL GLAZE	0 5% 1/8W
L301	1-408-413-00	INDUCTOR 22UH		JR12	1-216-296-00	METAL GLAZE	0 5% 1/8W
L302	1-408-417-00	INDUCTOR 47UH		JR16	1-216-296-00	METAL GLAZE	0 5% 1/8W
L303	1-543-813-21	FILTER, EMI		JR17	1-216-296-00	METAL GLAZE	0 5% 1/8W
L304	1-543-813-21	FILTER, EMI		JR18	1-216-296-00	METAL GLAZE	0 5% 1/8W
L305	1-543-813-21	FILTER, EMI		JR19	1-216-296-00	METAL GLAZE	0 5% 1/8W
L306	1-543-813-21	FILTER, EMI		JR20	1-216-295-00	METAL GLAZE	0 5% 1/10W
L307	1-543-813-21	FILTER, EMI		JR23	1-216-296-00	METAL GLAZE	0 5% 1/8W
L308	1-412-520-21	INDUCTOR 3.9UH		JR24	1-216-296-00	METAL GLAZE	0 5% 1/8W
L309	1-412-533-21	INDUCTOR 47UH		JR25	1-216-295-00	METAL GLAZE	0 5% 1/10W
L801	1-460-026-11	COIL, HORIZONTAL LINEARITY		JR26	1-216-296-00	METAL GLAZE	0 5% 1/8W
L803	1-407-365-00	COIL, CHOKE		JR27	1-216-296-00	METAL GLAZE	0 5% 1/8W
L804	1-412-530-11	INDUCTOR 27UH		JR28	1-216-296-00	METAL GLAZE	0 5% 1/8W
L805	1-407-500-00	INDUCTOR 4.7MMH		JR31	1-216-296-00	METAL GLAZE	0 5% 1/8W
		<TRANSISTOR>		JR32	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q101	8-729-903-30	TRANSISTOR DTC144TK		JR37	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q102	8-729-903-29	TRANSISTOR DTA144TK		JR38	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q103	8-729-901-59	TRANSISTOR BF199		JR39	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q104	8-729-000-12	TRANSISTOR BF959		JR40	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR41	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR42	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q107	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR43	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q108	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR44	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q109	8-729-903-30	TRANSISTOR DTC144TK		JR45	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR46	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q111	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR47	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q306	8-729-903-30	TRANSISTOR DTC144TK		JR48	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q307	8-729-119-77	TRANSISTOR 2SA1175-FEK		JR49	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q308	8-729-901-06	TRANSISTOR DTA144EK		JR50	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q309	8-729-903-30	TRANSISTOR DTC144TK		JR51	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q310	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR52	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q311	8-729-230-46	TRANSISTOR 2SA1162-YG		JR53	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q314	8-729-902-99	TRANSISTOR DTC114TK		JR54	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q315	8-729-902-99	TRANSISTOR DTC114TK		JR55	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q316	8-729-902-99	TRANSISTOR DTC114TK		JR56	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q317	8-729-902-99	TRANSISTOR DTC114TK		JR57	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q804	8-729-119-80	TRANSISTOR 2SC2688-LK		JR59	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q805	8-729-820-50	TRANSISTOR 2SA1016KFG		JR60	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q806	8-729-231-95	TRANSISTOR 2SD2089-LBSONY		JR61	1-216-295-00	METAL GLAZE	0 5% 1/10W
	4-382-854-11	SCREW (M3X10), P, SW (+); Q806		JR62	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q807	8-729-119-79	TRANSISTOR 2SC2785-FEK		JR63	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q808	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR66	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q809	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR67	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q810	8-729-230-46	TRANSISTOR 2SA1162-YG		JR70	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q811	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR71	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q813	8-729-119-79	TRANSISTOR 2SC2785-FEK		JR72	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q814	8-729-230-46	TRANSISTOR 2SA1162-YG		JR73	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q815	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR74	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q816	8-729-120-28	TRANSISTOR 2SC1623-L5L6		JR75	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q1031	8-729-902-99	TRANSISTOR DTC114TK		JR76	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q1032	8-729-902-99	TRANSISTOR DTC114TK		JR77	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR78	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR79	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR80	1-216-295-00	METAL GLAZE	0 5% 1/10W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
JR81	1-216-295-00	METAL GLAZE 0	5% 1/10W	R310	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR82	1-216-295-00	METAL GLAZE 0	5% 1/10W	R311	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR83	1-216-296-00	METAL GLAZE 0	5% 1/8W	R312	1-216-295-00	METAL GLAZE 0	5% 1/10W
JR85	1-216-296-00	METAL GLAZE 0	5% 1/8W	R313	1-216-073-00	METAL GLAZE 10K	5% 1/10W
JR86	1-216-295-00	METAL GLAZE 0	5% 1/10W	R314	1-216-073-00	METAL GLAZE 10K	5% 1/10W
JR87	1-216-296-00	METAL GLAZE 0	5% 1/8W	R315	1-216-089-00	METAL GLAZE 47K	5% 1/10W
JR88	1-216-296-00	METAL GLAZE 0	5% 1/8W	R317	1-216-033-00	METAL GLAZE 220	5% 1/10W
JR89	1-216-296-00	METAL GLAZE 0	5% 1/8W	R318	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR90	1-216-296-00	METAL GLAZE 0	5% 1/8W	R319	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR92	1-216-296-00	METAL GLAZE 0	5% 1/8W	R320	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR93	1-216-296-00	METAL GLAZE 0	5% 1/8W	R321	1-216-089-00	METAL GLAZE 47K	5% 1/10W
JR94	1-216-296-00	METAL GLAZE 0	5% 1/8W	R322	1-216-049-00	METAL GLAZE 1K	5% 1/10W
JR95	1-216-296-00	METAL GLAZE 0	5% 1/8W	R323	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R101	1-216-033-00	METAL GLAZE 220	5% 1/10W	R324	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R102	1-216-295-00	METAL GLAZE 0	5% 1/10W	R325	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R103	1-216-033-00	METAL GLAZE 220	5% 1/10W	R326	1-216-033-00	METAL GLAZE 220	5% 1/10W
R104	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R327	1-216-033-00	METAL GLAZE 220	5% 1/10W
R105	1-216-079-00	METAL GLAZE 18K	5% 1/10W	R328	1-216-025-00	METAL GLAZE 100	5% 1/10W
R106	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R329	1-216-025-00	METAL GLAZE 100	5% 1/10W
R108	1-216-025-00	METAL GLAZE 100	5% 1/10W	R330	1-216-025-00	METAL GLAZE 100	5% 1/10W
R109	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R331	1-216-025-00	METAL GLAZE 100	5% 1/10W
R110	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R332	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R111	1-216-041-00	METAL GLAZE 470	5% 1/10W	R333	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R112	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R334	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R113	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R335	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R114	1-216-021-00	METAL GLAZE 68	5% 1/10W	R336	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R115	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R337	1-216-033-00	METAL GLAZE 220	5% 1/10W
R116	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R338	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R117	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W	R339	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R118	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R340	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R119	1-216-033-00	METAL GLAZE 220	5% 1/10W	R341	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R120	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R342	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R121	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R343	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R122	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R344	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R123	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R345	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R124	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R346	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R125	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R347	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R126	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R348	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R127	1-216-041-00	METAL GLAZE 470	5% 1/10W	R349	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R128	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R350	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R129	1-216-037-00	METAL GLAZE 330	5% 1/10W	R351	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R132	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R352	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R133	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W	R353	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R134	1-216-041-00	METAL GLAZE 470	5% 1/10W	R354	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R135	1-216-025-00	METAL GLAZE 100	5% 1/10W	R355	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R136	1-216-085-00	METAL GLAZE 33K	5% 1/10W	R356	1-216-025-00	METAL GLAZE 100	5% 1/10W
R137	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R357	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R138	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R358	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R139	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R359	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R140	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R360	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R141	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R361	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R142	1-216-043-00	METAL GLAZE 560	5% 1/10W	R362	1-216-039-00	METAL GLAZE 390	5% 1/10W
R143	1-216-049-00	METAL GLAZE 1K	5% 1/10W	R363	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R144	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R364	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R145	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W	R366	1-216-033-00	METAL GLAZE 220	5% 1/10W
R301	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R367	1-216-033-00	METAL GLAZE 220	5% 1/10W
R302	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R368	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R303	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R371	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R304	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R372	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R305	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R377	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R306	1-216-089-00	METAL GLAZE 47K	5% 1/10W	R378	1-216-033-00	METAL GLAZE 220	5% 1/10W
R307	1-216-033-00	METAL GLAZE 220	5% 1/10W	R379	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
R308	1-216-033-00	METAL GLAZE 220	5% 1/10W	R380	1-216-295-00	METAL GLAZE 0	5% 1/10W
R309	1-216-089-00	METAL GLAZE 47K	5% 1/10W				

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The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R381	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R825	1-249-449-11	CARBON	1.5 5% 1/4W F
R382	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R828	1-249-443-11	CARBON	0.47 5% 1/4W F
R383	1-216-033-00	METAL GLAZE	220 5% 1/10W	R831	1-216-037-00	METAL GLAZE	330 5% 1/10W
R384	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R833	1-215-897-11	METAL OXIDE	6.8K 5% 2W F
R388	1-216-025-00	METAL GLAZE	100 5% 1/10W	R834	1-215-901-00	METAL OXIDE	33K 5% 2W F
R389	1-216-025-00	METAL GLAZE	100 5% 1/10W	R835	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R390	1-216-025-00	METAL GLAZE	100 5% 1/10W	R836	1-216-352-11	METAL OXIDE	1.8 5% 1W F
R391	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R837	1-247-699-11	CARBON	82 5% 1/4W F
R392	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R838	1-249-448-11	CARBON	1.2 5% 1/4W F
R393	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R839	1-215-882-00	METAL OXIDE	22 5% 2W F
R394	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R840	1-216-095-00	METAL GLAZE	82K 5% 1/10W
R395	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R841	1-215-449-00	METAL	15K 1% 1/4W
R396	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R842	1-215-455-00	METAL	27K 1% 1/4W
R397	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R843	1-216-430-11	METAL OXIDE	390 5% 1W F
R398	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R844	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R399	1-216-025-00	METAL GLAZE	100 5% 1/10W	R845	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R400	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R846	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R408	1-216-033-00	METAL GLAZE	220 5% 1/10W	R847	1-216-043-00	METAL GLAZE	560 5% 1/10W
R409	1-216-033-00	METAL GLAZE	220 5% 1/10W	R848	1-216-033-00	METAL GLAZE	220 5% 1/10W
R410	1-216-033-00	METAL GLAZE	220 5% 1/10W	R849	1-215-888-00	METAL OXIDE	220 5% 2W F
R411	1-216-033-00	METAL GLAZE	220 5% 1/10W	R850	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R412	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R851	1-249-400-11	CARBON	39 5% 1/4W
R413	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R852	1-215-473-00	METAL	150K 1% 1/4W
R414	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R853	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R415	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R854	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R416	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R855	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R417	1-216-025-00	METAL GLAZE	100 5% 1/10W	R857	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R418	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R858	1-249-437-11	CARBON	47K 5% 1/4W
R419	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R859	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R420	1-216-295-00	METAL GLAZE	0 5% 1/10W	R860	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R421	1-216-295-00	METAL GLAZE	0 5% 1/10W	<SWITCH>			
R422	1-216-073-00	METAL GLAZE	10K 5% 1/10W	SW301	1-571-532-21	SWITCH, TACTIL	
R423	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	<TRANSFORMER>			
R424	1-216-089-00	METAL GLAZE	47K 5% 1/10W	T101	1-404-806-11	COIL	
R426	1-216-073-00	METAL GLAZE	10K 5% 1/10W	T801	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
R427	1-216-073-00	METAL GLAZE	10K 5% 1/10W	T802 1-439-476-11	TRANSFORMER ASSY, FLYBACK		
R430	1-216-073-00	METAL GLAZE	10K 5% 1/10W	T803	1-424-646-11	TRANSFORMER, FERRITE (H.PCT)	
R431	1-216-049-00	METAL GLAZE	1K 5% 1/10W	<TUNER>			
R432	1-216-033-00	METAL GLAZE	220 5% 1/10W	TU101 1-465-301-11	TUNER, ET (UV-816(PLL))		
R433	1-216-033-00	METAL GLAZE	220 5% 1/10W	<IF BLOCK>			
R434	1-216-033-00	METAL GLAZE	220 5% 1/10W	VIF101	1-464-962-11	IF BLOCK (IFG-389FS)	
R435	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	<CRYSTAL>			
R436	1-216-073-00	METAL GLAZE	10K 5% 1/10W	X301	1-577-071-11	VIBRATOR, CERAMIC	
R437	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*****			
R438	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*A-1316-122-A	G BOARD, COMPLETE		
R439	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*****			
R440	1-216-033-00	METAL GLAZE	220 5% 1/10W	*4-341-751-01	EYELET (CN609)		
R441	1-216-033-00	METAL GLAZE	220 5% 1/10W	*4-341-752-01	EYELET (EY601,EY602)		
R442	1-216-049-00	METAL GLAZE	1K 5% 1/10W	4-382-854-11	SCREW (M3X10), P, SW (+)		
R443	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
R444	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R801	1-249-449-11	CARBON	1.5 5% 1/4W F				
R802	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R805	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R806	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
R808	1-249-451-11	CARBON	2.2 5% 1/4W F				
R809	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
R811	1-215-889-00	METAL OXIDE	330 5% 2W F				
R812	1-249-459-11	CARBON	12K 5% 1/4W F				
R813	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
R817	1-216-373-11	METAL OXIDE	2.2 5% 2W F				
R819	1-216-442-00	METAL OXIDE	39K 5% 1W F				
R820	1-216-437-91	METAL OXIDE	5.6K 5% 1W F				
R824	1-247-716-11	CARBON	1.8K 5% 1/4W F				

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<CAPACITOR>							
C602	1-161-742-00	CERAMIC	0.0022MF 20% 400V	D622	8-719-510-48	DIODE D1N20R	
C603	1-162-130-11	CERAMIC	180PF 10% 2KV	D623	8-719-510-48	DIODE D1N20R	
C612	1-128-125-91	ELECT	180MF 20% 16V	D628	8-719-510-26	DIODE D1NL20	
C613	1-126-516-11	ELECT	120MF 20% 16V	D629	8-719-110-46	DIODE RD16ES-B3	
C614	1-124-786-11	ELECT	22MF 20% 35V	D651	8-719-510-26	DIODE D1NL20	
C615	1-126-777-51	ELECT	2200MF 20% 35V	D652	8-719-510-26	DIODE D1NL20	
C616	1-136-153-00	FILM	0.01MF 5% 50V	D653	8-719-510-26	DIODE D1NL20	
C617	1-136-153-00	FILM	0.01MF 5% 50V	D654	8-719-510-26	DIODE D1NL20	
C618	1-136-153-00	FILM	0.01MF 5% 50V	D655	8-719-109-88	DIODE RD5.6ES-B1	
C619	1-136-153-00	FILM	0.01MF 5% 50V	D661	8-719-510-13	DIODE D10SC4MR	
C620	1-137-189-11	FILM	0.18MF 5% 50V	4-382-854-11 SCREW (M3X10), P, SW (+); D661			
C621	1-137-189-11	FILM	0.18MF 5% 50V	D662	8-719-510-12	DIODE D10SC4M	
C622	1-137-189-11	FILM	0.18MF 5% 50V	D665	8-719-025-11	DIODE D8LC20UR	
C623	1-137-189-11	FILM	0.18MF 5% 50V	D666	8-719-025-10	DIODE D8LC20U	
C624	1-136-153-00	FILM	0.01MF 5% 50V	D671	8-719-110-46	DIODE RD16ES-B3	
C625	1-136-153-00	FILM	0.01MF 5% 50V	D672	8-719-510-26	DIODE D1NL20	
C626	1-137-572-21	FILM	0.056MF 5% 400V	D673	8-719-911-19	DIODE 1SS119	
C627	1-137-552-11	FILM	0.23MF 5% 42V	D674	8-719-510-48	DIODE D1N20R	
C628	1-124-126-00	ELECT	47MF 20% 25V	<FERRITE BEAD>			
C629	1-126-516-11	ELECT	120MF 20% 16V	FB601	1-412-911-11	INDUCTOR, FERRITE BEAD	
C630	1-128-102-11	ELECT	1200MF 20% 16V	FB602	1-412-911-11	INDUCTOR, FERRITE BEAD	
C631	1-126-376-11	ELECT	470MF 20% 25V	FB603	1-412-911-11	INDUCTOR, FERRITE BEAD	
C632	1-126-600-11	ELECT	100MF 20% 160V	FB604	1-412-911-11	INDUCTOR, FERRITE BEAD	
C633	1-124-122-11	ELECT	100MF 20% 25V	FB605	1-412-911-11	INDUCTOR, FERRITE BEAD	
C634	1-101-821-00	CERAMIC	0.0022MF 500V	FB606	1-412-911-11	INDUCTOR, FERRITE BEAD	
C635	1-136-161-00	FILM	0.047MF 5% 50V	FB607	1-412-911-11	INDUCTOR, FERRITE BEAD	
C636	1-102-038-00	CERAMIC	0.001MF 500V	FB608	1-412-911-11	INDUCTOR, FERRITE BEAD	
C637	1-126-516-11	ELECT	120MF 20% 16V	FB609	1-410-396-41	FERRITE BEAD INDUCTOR	
C638	1-123-379-00	ELECT	0.47MF 20% 50V	FB610	1-410-396-41	FERRITE BEAD INDUCTOR	
C639	1-136-165-00	FILM	0.1MF 5% 50V	FB611	1-543-194-00	CORE, BEAD	
C651	1-136-153-00	FILM	0.01MF 5% 50V	FB612	1-543-194-00	CORE, BEAD	
C661	1-164-644-11	CERAMIC	330PF 10% 500V	<IC>			
C662	1-136-129-00	FILM	0.3MF 5% 400V	IC601	8-759-604-39	IC M5F78M12L	
C663	1-162-130-11	CERAMIC	180PF 10% 2KV	4-382-854-01 SCREW (M3X8), P, SW (+); IC601			
C664	1-162-130-11	CERAMIC	180PF 10% 2KV	IC602	8-759-047-18	IC UPC2255H	
C665	1-136-170-00	FILM	0.27MF 5% 50V	IC603	8-749-921-99	IC SI-3120CA	
C667	1-136-170-00	FILM	0.27MF 5% 50V	4-382-854-01 SCREW (M3X8), P, SW (+); IC603			
C668	1-137-573-31	FILM	0.0047MF 5% 630V	IC604	1-809-703-11	MODULE, POWER DM-46	
C669	1-136-067-00	FILM	0.0036MF 3% 2KV	IC605	1-809-704-11	MODULE, POWER DM-45	
C670	1-128-125-91	ELECT	180MF 20% 16V	<COIL>			
<CONNECTOR>				L602	1-412-533-21	INDUCTOR 47UH	
CN604	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		<TRANSISTOR>			
CN605	*1-580-838-11	PIN, CONNECTOR (PC BOARD) 4P		Q601	8-729-010-85	TRANSISTOR 2SC4833	
CN606	*1-564-506-11	PLUG, CONNECTOR 3P		Q602	8-729-010-85	TRANSISTOR 2SC4833	
CN607	*1-564-511-11	PLUG, CONNECTOR 8P		Q603	8-729-011-74	TRANSISTOR 2SC4876	
CN608	*1-564-505-11	PLUG, CONNECTOR 2P		Q604	8-729-011-74	TRANSISTOR 2SC4876	
CN610	*1-564-507-11	PLUG, CONNECTOR 4P		Q605	8-729-011-74	TRANSISTOR 2SC4876	
CN611	*1-564-321-00	PIN, CONNECTOR 2P		Q606	8-729-011-74	TRANSISTOR 2SC4876	
<DIODE>				Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
D602	8-719-510-48	DIODE D1N20R		Q608	8-729-920-92	TRANSISTOR 2SD2096-EF	
D603	8-719-510-48	DIODE D1N20R		Q610	8-729-122-12	TRANSISTOR 2SA1221-L	
D604	8-719-510-48	DIODE D1N20R		Q611	8-729-920-92	TRANSISTOR 2SD2096-EF	
D615	8-719-911-19	DIODE 1SS119		Q671	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D616	8-719-510-48	DIODE D1N20R		Q672	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D617	8-719-510-48	DIODE D1N20R					
D618	8-719-510-48	DIODE D1N20R					
D619	8-719-510-48	DIODE D1N20R					
D620	8-719-510-48	DIODE D1N20R					
D621	8-719-510-48	DIODE D1N20R					

G

G1

C

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>				*****			
R603	1-215-859-00	METAL OXIDE	22 5% 1W F	*1-642-571-11	G1 BOARD		
R604	1-215-859-00	METAL OXIDE	22 5% 1W F	*****			
R605	1-202-844-00	SOLID	330K 10% 1/2W	*4-341-751-01	EYELET (EY690,EY691)		
R606	1-202-844-00	SOLID	330K 10% 1/2W				
R607	1-215-859-00	METAL OXIDE	22 5% 1W F	<CONNECTOR>			
R608	1-216-341-11	METAL OXIDE	0.22 5% 1W F	CN612	*1-564-517-11	PLUG, CONNECTOR 2P	
R609	1-216-341-11	METAL OXIDE	0.22 5% 1W F	<DIODE>			
R610	1-249-429-11	CARBON	10K 5% 1/4W	D691	8-719-911-19	DIODE 1SS119	
R611	1-249-429-11	CARBON	10K 5% 1/4W	<RELAY>			
R613	1-216-341-11	METAL OXIDE	0.22 5% 1W F	RY691	A 1-515-788-12	RELAY, POWER	
R614	1-216-341-11	METAL OXIDE	0.22 5% 1W F	*****			
R615	1-216-341-11	METAL OXIDE	0.22 5% 1W F	*A-1331-179-A	C BOARD, COMPLETE		
R616	1-216-341-11	METAL OXIDE	0.22 5% 1W F	*****			
R617	1-216-354-11	METAL OXIDE	2.7 5% 1W F	<CAPACITOR>			
R618	1-216-347-11	METAL OXIDE	0.68 5% 1W F	C701	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R619	1-216-354-11	METAL OXIDE	2.7 5% 1W F	C702	1-163-134-00	CERAMIC CHIP 510PF	5% 50V
R620	1-216-354-11	METAL OXIDE	2.7 5% 1W F	C703	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R626	1-216-422-11	METAL OXIDE	18 5% 1W F	C704	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
R627	1-249-425-11	CARBON	4.7K 5% 1/4W	C705	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
R628	1-249-425-11	CARBON	4.7K 5% 1/4W	C706	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
R629	1-249-413-11	CARBON	470 5% 1/4W F	C707	1-124-477-11	ELECT 47MF	20% 16V
R630	1-249-405-11	CARBON	100 5% 1/4W F	C708	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R631	1-249-405-11	CARBON	100 5% 1/4W F	C709	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R633	1-218-268-51	METAL	0.47 5% 1/2W	C710	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
R634	1-218-268-51	METAL	0.47 5% 1/2W	C711	1-162-116-00	CERAMIC 680PF	10% 2KV
R635	1-249-394-11	CARBON	12 5% 1/4W F	C712	1-102-050-00	CERAMIC 0.01MF	500V
R636	1-249-405-11	CARBON	100 5% 1/4W F	C713	1-162-114-00	CERAMIC 0.0047MF	2KV
R637	1-216-422-11	METAL OXIDE	18 5% 1W F	C714	1-124-477-11	ELECT 47MF	20% 16V
R638	1-249-377-11	CARBON	0.47 5% 1/4W F	C715	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R639	1-249-422-11	CARBON	2.7K 5% 1/4W	C716	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R651	1-249-396-11	CARBON	18 5% 1/4W F	C717	1-126-233-11	ELECT 22MF	20% 50V
R652	1-249-421-11	CARBON	2.2K 5% 1/4W	C718	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R653	1-249-418-11	CARBON	1.2K 5% 1/4W	<CONNECTOR>			
R661	1-215-857-11	METAL OXIDE	10 5% 1W F	CN701	*1-564-509-11	PLUG, CONNECTOR 6P	
R671	1-249-424-11	CARBON	3.9K 5% 1/4W	CN702	*1-564-510-11	PLUG, CONNECTOR 7P	
R672	1-249-420-11	CARBON	1.8K 5% 1/4W	<DIODE>			
R673	1-249-418-11	CARBON	1.2K 5% 1/4W	D701	8-719-400-18	DIODE MA152WK	
R674	1-249-421-11	CARBON	2.2K 5% 1/4W	D702	8-719-400-18	DIODE MA152WK	
R675	1-249-424-11	CARBON	2.2K 5% 1/4W	D703	8-719-400-18	DIODE MA152WK	
R676	1-249-421-11	CARBON	2.2K 5% 1/4W	D704	8-719-400-18	DIODE MA152WK	
R677	1-249-429-11	CARBON	10K 5% 1/4W	D705	8-719-400-18	DIODE MA152WK	
R678	1-249-429-11	CARBON	10K 5% 1/4W	D706	8-719-400-18	DIODE MA152WK	
R679	1-249-424-11	CARBON	3.9K 5% 1/4W	D707	8-719-911-19	DIODE 1SS119	
R680	1-249-421-11	CARBON	2.2K 5% 1/4W	D708	8-719-911-19	DIODE 1SS119	
R681	1-217-418-00	FUSIBLE	0.47 10% 1/2W F	D709	8-719-911-19	DIODE 1SS119	
R682	1-249-399-11	CARBON	33 5% 1/4W F	<JACK>			
<RELAY>							
RY602	A 1-515-888-11	RELAY					
<TRANSFORMER>							
T603	A 1-424-647-11	TRANSFORMER, FERRITE (SBT-1B)					
T604	A 1-450-862-11	TRANSFORMER, CONVERTER (PRT1-B)					
T605	A 1-437-213-11	TRANSFORMER, CONVERTER DRIVE					
T606	A 1-450-861-11	TRANSFORMER, CONVERTER DRIVE					
<VARISTOR>							
VDR601	A 1-809-679-11	VARISTOR					
VDR602	A 1-809-678-11	VARISTOR					

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C**H1****H2****H3****J1****J3****J4**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
J701	1-526-958-21	SOCKET, PICTURE TUBE				<DIODE>	
		<TRANSISTOR>		D401	8-719-907-87	DIODE PR5638S	
					4-035-418-01	HOLDER, LED; D401	
						<IC>	
Q701	8-729-230-49	TRANSISTOR 2SC2712-YG		IC401	8-749-900-36	IC BX-1393	
Q702	8-729-230-49	TRANSISTOR 2SC2712-YG				<RESISTOR>	
Q703	8-729-230-49	TRANSISTOR 2SC2712-YG		R401	1-216-039-00	METAL GLAZE 390 5% 1/10W	
Q704	8-729-326-11	TRANSISTOR 2SC2611		R402	1-216-033-00	METAL GLAZE 220 5% 1/10W	
Q705	8-729-326-11	TRANSISTOR 2SC2611				*****	
Q706	8-729-326-11	TRANSISTOR 2SC2611			*1-641-500-11	H2 BOARD	
Q707	8-729-200-17	TRANSISTOR 2SA1091-0				*****	
Q708	8-729-200-17	TRANSISTOR 2SA1091-0				<CONNECTOR>	
Q709	8-729-200-17	TRANSISTOR 2SA1091-0		CN402	*1-564-517-11	PLUG, CONNECTOR 2P	
Q710	8-729-209-03	TRANSISTOR 2SC2551-R0				<SWITCH>	
Q711	8-729-230-46	TRANSISTOR 2SA1162-YG		SW401 A 1-554-937-21	SWITCH, KEY BOARD (POWER)		
		<RESISTOR>				*****	
R701	1-216-017-00	METAL GLAZE 47 5% 1/10W			*1-641-501-11	H3 BOARD	
R702	1-249-412-11	CARBON 390 5% 1/4W				*****	
R703	1-216-049-00	METAL GLAZE 1K 5% 1/10W				<CONNECTOR>	
R704	1-216-009-00	METAL GLAZE 22 5% 1/10W		CN403	*1-564-518-11	PLUG, CONNECTOR 3P	
R705	1-249-412-11	CARBON 390 5% 1/4W				<SWITCH>	
R706	1-216-049-00	METAL GLAZE 1K 5% 1/10W		SW402	1-554-937-11	SWITCH, KEY BOARD	
R707	1-216-017-00	METAL GLAZE 47 5% 1/10W				*****	
R708	1-249-412-11	CARBON 390 5% 1/4W			*1-641-502-11	J1 BOARD	
R709	1-249-417-11	CARBON 1K 5% 1/4W				*****	
R713	1-216-049-00	METAL GLAZE 1K 5% 1/10W			*1-641-505-11	J3 BOARD	
R715	1-216-049-00	METAL GLAZE 1K 5% 1/10W				*****	
R717	1-216-049-00	METAL GLAZE 1K 5% 1/10W			*1-641-506-12	J4 BOARD	
R718	1-216-463-00	METAL OXIDE 12K 5% 2W F				*****	
R719	1-216-463-00	METAL OXIDE 12K 5% 2W F				<CAPACITOR>	
R720	1-216-463-00	METAL OXIDE 12K 5% 2W F		C501	1-136-165-00	FILM 0.1MF 5% 50V	
R721	1-202-824-00	SOLID 3.3K 10% 1/2W		C502	1-136-165-00	FILM 0.1MF 5% 50V	
R722	1-202-824-00	SOLID 3.3K 10% 1/2W				<CONNECTOR>	
R723	1-202-824-00	SOLID 3.3K 10% 1/2W		CN502	*1-580-838-11	PIN, CONNECTOR (PC BOARD) 4P	
R724	1-202-842-11	SOLID 220K 10% 1/2W				<DIODE>	
R725	1-202-719-00	SOLID 1M 10% 1/2W		D501	8-719-912-51	DIODE ESAC25-04C	
R726	1-202-838-00	SOLID 100K 10% 1/2W					
R728	1-249-415-11	CARBON 680 5% 1/4W					
R729	1-249-433-11	CARBON 22K 5% 1/4W					
R730	1-216-025-00	METAL GLAZE 100 5% 1/10W					
R731	1-216-025-00	METAL GLAZE 100 5% 1/10W					
R732	1-216-025-00	METAL GLAZE 100 5% 1/10W					
R733	1-249-423-11	CARBON 3.3K 5% 1/4W					
R734	1-216-043-00	METAL GLAZE 560 5% 1/10W					
R735	1-249-417-11	CARBON 1K 5% 1/4W					
R736	1-249-389-11	CARBON 4.7 5% 1/4W					
R737	1-249-438-11	CARBON 56K 5% 1/4W					

	*1-641-499-11	H1 BOARD					

		<CONNECTOR>					
CN401	*1-564-519-11	PLUG, CONNECTOR 4P					
		<COMPOSITION CIRCUIT BLOCK>					
CP401	1-232-680-11	COMPOSITION CIRCUIT BLOCK					

J4

J2

Y

The components identified by shading and mark Δ are critical for safety.
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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D502	8-719-912-51	DIODE ESAC25-04C		R517	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
D503	8-719-931-35	DIODE EQB01-35		R518	1-216-172-00	METAL GLAZE 82 5% 1/8W	
<FUSE>				*****			
F501	Δ 1-532-279-11	FUSE, TIME LAG 0.5A/250V		*A-1394-338-A	Y BOARD, COMPLETE	*****	
	1-533-223-11	CLIP, FUSE; F501					
<COIL>				*4-341-751-01	EYELET (EY201~EY203, EY601, EY602, EY606, EY607, EY610, EY611, EY613, EY614, EY617~EY620, EY625~EY628, EY631, EY636)		
L501	1-424-648-11	TRANSFORMER, LINE FILTER (LFT)		*4-341-752-01	EYELET (EY615, EY616, EY629, EY630, EY632~EY635)		
<TRANSISTOR>				<CAPACITOR>			
Q501	8-729-206-05	TRANSISTOR 2SA1329-0		C201	1-124-557-11	ELECT 1000MF 20% 25V	
<RESISTOR>				C202	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
R501	1-249-427-11	CARBON 6.8K 5% 1/4W		C203	1-124-557-11	ELECT 1000MF 20% 25V	
R502	1-249-409-11	CARBON 220 5% 1/4W		C204	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
R503	1-216-359-00	METAL OXIDE 6.8 5% 1W F		C205	1-124-477-11	ELECT 47MF 20% 16V	
R504	1-216-359-00	METAL OXIDE 6.8 5% 1W F		C206	1-124-477-11	ELECT 47MF 20% 16V	
*****				C208	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
*1-641-503-11	J2 BOARD	*****		C209	1-124-234-00	ELECT 22MF 20% 16V	
<CAPACITOR>				C210	1-136-165-00	FILM 0.1MF 5% 50V	
C510	1-124-477-11	ELECT 47MF 20% 16V		C211	1-163-141-00	CERAMIC CHIP 0.001MF 5% 50V	
C511	1-124-477-11	ELECT 47MF 20% 16V		C212	1-136-165-00	FILM 0.1MF 5% 50V	
C512	1-124-477-11	ELECT 47MF 20% 16V		C213	1-124-903-11	ELECT 1MF 20% 50V	
C513	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V		C214	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
C514	1-163-005-11	CERAMIC CHIP 470PF 10% 50V		C215	1-130-491-00	MYLAR 0.047MF 5% 50V	
<CONNECTOR>				C216	1-136-165-00	FILM 0.1MF 5% 50V	
CN501	*1-564-525-11	PLUG, CONNECTOR 10P		C217	1-102-114-00	CERAMIC 470PF 10% 50V	
<DIODE>				C218	1-102-114-00	CERAMIC 470PF 10% 50V	
D510	8-719-110-30	DIODE RD12ES-B1		C219	1-102-114-00	CERAMIC 470PF 10% 50V	
D511	8-719-110-30	DIODE RD12ES-B1		C220	1-124-119-00	ELECT 330MF 20% 16V	
D512	8-719-110-30	DIODE RD12ES-B1		C221	1-124-477-11	ELECT 47MF 20% 16V	
D513	8-719-110-30	DIODE RD12ES-B1		C222	1-126-160-11	ELECT 1MF 20% 50V	
<JACK>				C223	1-126-163-11	ELECT 4.7MF 20% 25V	
J510	1-562-837-21	JACK		C224	1-124-477-11	ELECT 47MF 20% 16V	
J511	1-565-666-12	TERMINAL, S 4P		C225	1-126-101-11	ELECT 100MF 20% 16V	
J512	1-563-500-21	JACK BLOCK, PIN (L TYPE) 2P		C227	1-126-233-11	ELECT 22MF 20% 50V	
<COIL>				C228	1-124-479-11	ELECT 330MF 20% 25V	
L510	1-408-397-00	INDUCTOR 1UH		C229	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
L511	1-408-409-00	INDUCTOR 10UH		C230	1-126-103-11	ELECT 470MF 20% 16V	
L512	1-408-409-00	INDUCTOR 10UH		C231	1-101-006-00	CERAMIC 0.047MF 50V	
<RESISTOR>				C232	1-101-006-00	CERAMIC 0.047MF 50V	
R510	1-247-741-11	CARBON 150 5% 1/2W		C233	1-101-006-00	CERAMIC 0.047MF 50V	
R511	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C234	1-124-477-11	ELECT 47MF 20% 16V	
R514	1-216-172-00	METAL GLAZE 82 5% 1/8W		C235	1-124-589-11	ELECT 47MF 20% 16V	
R515	1-249-404-00	CARBON 82 5% 1/4W		C601	Δ 1-136-360-51	FILM 0.22MF 20% 250V	
R516	1-216-077-00	METAL GLAZE 15K 5% 1/10W		C604	Δ 1-164-246-11	CERAMIC 0.0022MF 20% 400V	
<CONNECTOR>				C606	Δ 1-136-360-51	FILM 0.22MF 20% 250V	
CN10	1-561-534-00	SOCKET 21P		C607	Δ 1-161-964-61	CERAMIC 0.0047MF 250V	
CN201	*1-564-515-11	PLUG, CONNECTOR 12P		C608	Δ 1-161-964-61	CERAMIC 0.0047MF 250V	
CN202	*1-564-509-11	PLUG, CONNECTOR 6P		C609	Δ 1-162-578-51	CERAMIC 0.0047MF 20% 400V	
CN203	*1-564-510-11	PLUG, CONNECTOR 7P		C610	Δ 1-125-497-11	ELECT (BLOCK) 100MF 20% 400V	
				C611	Δ 1-161-964-61	CERAMIC 0.0047MF 250V	

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Y

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
CN204	*1-564-513-11	PLUG, CONNECTOR 10P		R206	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
CN205	*1-564-505-11	PLUG, CONNECTOR 2P		R207	1-247-738-11	CARBON	82 5% 1/2W F
CN206	*1-564-506-11	PLUG, CONNECTOR 3P		R208	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
CN601	*1-580-843-11	PIN, CONNECTOR (POWER)		R209	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
CN602	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R210	1-216-105-00	METAL GLAZE	220K 5% 1/10W
CN603	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		R211	1-216-295-00	METAL GLAZE	0 5% 1/10W
<DIODE>				R212	1-249-387-11	CARBON	3.3 5% 1/4W
D202	8-719-110-30	DIODE RD12ES-B1		R213	1-249-417-11	CARBON	1K 5% 1/4W
D203	8-719-110-13	DIODE RD9.1ES-B2		R214	1-249-438-11	CARBON	56K 5% 1/4W
D204	8-719-911-19	DIODE 1SS119		R215	1-249-404-00	CARBON	82 5% 1/4W
D205	8-719-109-85	DIODE RD5.1ES-B2		R216	1-249-404-00	CARBON	82 5% 1/4W
D206	8-719-110-30	DIODE RD12ES-B1		R218	1-249-404-00	CARBON	82 5% 1/4W
D207	8-719-110-30	DIODE RD12ES-B1		R219	1-249-404-00	CARBON	82 5% 1/4W
D208	8-719-110-30	DIODE RD12ES-B1		R220	1-249-403-11	CARBON	68 5% 1/4W
D209	8-719-110-30	DIODE RD12ES-B1		R221	1-216-033-00	METAL GLAZE	220 5% 1/10W
D210	8-719-110-30	DIODE RD12ES-B1		R222	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
D211	8-719-110-30	DIODE RD12ES-B1		R223	1-216-041-00	METAL GLAZE	470 5% 1/10W
D212	8-719-110-30	DIODE RD12ES-B1		R224	1-216-033-00	METAL GLAZE	220 5% 1/10W
D213	8-719-110-30	DIODE RD12ES-B1		R225	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
D214	8-719-911-19	DIODE 1SS119		R227	1-216-047-00	METAL GLAZE	820 5% 1/10W
D215	8-719-400-18	DIODE MA152WK		R228	1-216-089-00	METAL GLAZE	47K 5% 1/10W
D601	8-719-510-53	DIODE D4SB60L		R229	1-216-295-00	METAL GLAZE	0 5% 1/10W
<FUSE>				R230	1-216-023-00	METAL GLAZE	82 5% 1/10W
F601	1-576-230-11	FUSE (H.B.C.) 3 15A/250V		R231	1-216-295-00	METAL GLAZE	0 5% 1/10W
	1-533-223-11	CLIP, FUSE; F601		R232	1-216-033-00	METAL GLAZE	220 5% 1/10W
<FILTER>				R233	1-216-049-00	METAL GLAZE	1K 5% 1/10W
FL201	1-424-261-11	FILTER, SIGNAL LINE NOISE		R234	1-216-049-00	METAL GLAZE	1K 5% 1/10W
FL202	1-424-261-11	FILTER, SIGNAL LINE NOISE		R235	1-216-021-00	METAL GLAZE	68 5% 1/10W
FL203	1-424-261-11	FILTER, SIGNAL LINE NOISE		R236	1-249-417-11	CARBON	1K 5% 1/4W
FL204	1-424-261-11	FILTER, SIGNAL LINE NOISE		R237	1-249-417-11	CARBON	1K 5% 1/4W
FL205	1-424-261-11	FILTER, SIGNAL LINE NOISE		R238	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
FL206	1-424-261-11	FILTER, SIGNAL LINE NOISE		R239	1-216-085-00	METAL GLAZE	33K 5% 1/10W
<IC>				R240	1-216-033-00	METAL GLAZE	220 5% 1/10W
IC201	8-752-053-17	IC CXA1114P		R241	1-216-073-00	METAL GLAZE	10K 5% 1/10W
IC202	8-759-041-82	IC TDA1013B		R242	1-216-073-00	METAL GLAZE	10K 5% 1/10W
<COIL>				R244	1-216-073-00	METAL GLAZE	10K 5% 1/10W
L201	1-412-533-21	INDUCTOR 47UH		R245	1-216-073-00	METAL GLAZE	10K 5% 1/10W
<TRANSISTOR>				R246	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R247	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q203	8-729-230-46	TRANSISTOR 2SA1162-YG		R249	1-216-025-00	METAL GLAZE	100 5% 1/10W
Q204	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R250	1-216-073-00	METAL GLAZE	10K 5% 1/10W
Q205	8-729-230-46	TRANSISTOR 2SA1162-YG		R251	1-216-089-00	METAL GLAZE	47K 5% 1/10W
Q206	8-729-119-79	TRANSISTOR 2SC2785-FEK		R252	1-216-025-00	METAL GLAZE	100 5% 1/10W
Q207	8-729-230-46	TRANSISTOR 2SA1162-YG		R253	1-216-049-00	METAL GLAZE	1K 5% 1/10W
<RESISTOR>				R254	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR200	1-216-296-00	METAL GLAZE	0 5% 1/8W	R601	1-205-909-11	WIREWOUND	3.3 5% 10W F
R201	1-216-295-00	METAL GLAZE	0 5% 1/10W	R603	1-249-443-11	CARBON	0.47 5% 1/4W F
R202	1-216-049-00	METAL GLAZE	1K 5% 1/10W	<RELAY>			
R204	1-216-049-00	METAL GLAZE	1K 5% 1/10W	RY601	1-515-579-11	RELAY	
R205	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	<TRANSFORMER>			
<THERMISTOR>				T601	1-424-391-11	TRANSFORMER, LINE FILTER	
<THERMISTOR>				T602	1-424-391-11	TRANSFORMER, LINE FILTER	
<THERMISTOR>				THP601	1-806-165-12	THERMISTOR (POSITIVE)	

PW

The components identified by shading and mark **A** are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
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*9-902-396-01	PW BOARD		

9-902-398-01	SWITCH, TACTIL		
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MISCELLANEOUS

A1-426-590-11	COIL, DEMAGNETIZATION		
A1-451-354-11	DEFLECTION YOKE (Y11SLA)		
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ		
1-452-512-11	MAGNET		
1-466-678-11	SWITCH BLOCK		

J501 A1-540-054-11	INLET, AC		
1-561-530-00	CONNECTOR (DC POWER)		

SP901 1-544-187-11	SPEAKER		
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V901 A8-735-821-05	PICTURE TUBE (A27KGC10X)		
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ACCESSORIES AND PACKING MATERIALS

PART NO.	DESCRIPTION	REMARK
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1-501-397-41	ANTENNA, TELESCOPIC (AN-18G)	
A1-532-325-11	FUSE, TIME-LAG 6.3A/250V	
A1-690-827-11	CORD SET, POWER	
A1-690-828-11	CORD, DC POWER	
*3-704-301-01	BAG (STANDARD), PROTECTION	

3-754-681-11	MANUAL, INSTRUCTION	
*4-035-665-01	CUSHION (UPPER) (ASSY)	
*4-035-666-01	CUSHION (LOWER) (ASSY)	
*4-035-667-01	TRAY	
*4-035-675-01	INDIVIDUAL CARTON	

REMOTE COMMANDER

1-693-075-11	REMOTE COMMANDER (RM-818)	
9-900-029-01	COVER, BATTERY (FOR RM-818)	